



TETRA TECH

February 12, 2016

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**Subject: Preliminary Assessment Report
Tanglefoot Lane Site, Bettendorf, Iowa
U.S. EPA Region 7 START 4, Contract No. EP-S7-13-06, Task Order No. 0111.002
Task Monitor: Todd H. Davis, Site Assessment Manager**

Dear Mr. Davis:

Tetra Tech, Inc. (Tetra Tech) is submitting the enclosed Preliminary Assessment report regarding the Tanglefoot Lane site in Bettendorf, Iowa. If you have any questions or comments regarding this submittal, please contact the Project Manager at (816) 412-1784.

Sincerely,

Adam Watkins
START Project Manager

(b) (4)

START Program Manager

Enclosures

cc: Debra Dorsey, START Project Officer (cover letter only)



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**PRELIMINARY ASSESSMENT REPORT
TANGLEFOOT LANE SITE
BETTENDORF, IOWA**

Superfund Technical Assessment and Response Team (START) 4 Contract

Contract No. EP-S7-13-06, Task Order No. 0111.002

Prepared For:

U.S. Environmental Protection Agency
Region 7
Superfund Division
11201 Renner Boulevard
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1.0 INTRODUCTION

The U.S. Environmental Protection Agency (EPA) Region 7 Superfund Division tasked Tetra Tech, Inc., (Tetra Tech), under Superfund Technical Assessment and Response Team (START) 4 Contract No. EP-S7-13-06, Task Order No. 0111.002, to conduct a preliminary assessment (PA) at the Tanglefoot Lane site (the site) in Bettendorf, Iowa. The PA is in response to discovery of contaminants at the site. The purpose of this investigation is to evaluate whether any threats to human health or the environment exist as a result of the previously identified contamination. This PA report presents elements of the sampling strategy and analytical methods applied during the assessment. Furthermore, the report summarizes PA analytical results and discusses Hazard Ranking System (HRS) factors/Emergency Response (ER) considerations.

This PA accords with EPA's *Guidance for Performing Preliminary Assessments under CERCLA*, publication 9345.0-01A, September 1991; *Guidance for Performing Site Inspections under CERCLA, Interim Final*, publication 9345.1-05, September 1992; and Reference Guide titled "Improved Site Assessment: Abbreviated Preliminary Assessments," publication 98 963308, October 1999.

2.0 SITE INFORMATION

This section presents information about the site.

2.1 LOCATION/DESCRIPTION

The site is within the City of Bettendorf in Scott County, Iowa, and has geographical coordinates of 41.560218 degrees north latitude and 90.474599 degrees west longitude (see Appendix A, Figure 1). It consists of two contiguous parcels, 841523010 and 841433011, totaling approximately 18 acres, off Tanglefoot Lane between Devils Glen Road and Middle Road. Records from the Scott County Assessor's Office show that Parcel 841523010 consists of acreage north and south of Tanglefoot Lane; however, this PA is limited to the acreage south of Tanglefoot Lane (see Appendix A, Figure 2).

Most of the acreage at the site is timber and grassland with steep topographical slopes to the south toward an unnamed creek that discharges to a neighboring residential pond. Adjacent property to the north is developed for residential use; adjacent properties to the east and west are residential/commercial; adjacent property across the creek to the south is improved with a church, parking lots, and residential use.

2.2 BACKGROUND

The site property is currently owned by (b) (6) (b) (6) and (b) (6)

They reported that their father, Harry Meinert, now deceased, owned the property consisting of a farmhouse with extensive acreage since their childhood. Table 1 summarizes previous uses of the site:

TABLE 1
SUMMARY OF HISTORICAL LAND USE
TANGLEFOOT LANE SITE
BETTENDORF, IOWA

Date or Date Range	Use
1937-1950s	The site was a homestead, used for farming; significant portion was timber with a large ravine.
1950s-1960s	Current owners of the site reported that during this time, Harry Meinert began collecting and storing/disposing of municipal and possibly industrial waste materials.
1960s-1970s	Waste collection and on-site disposal of materials occurred.
1970s-1980s	Storage/disposal stopped at some time in the late 1960s or early 1970s. Vegetation reclaimed the landfill area.
1980s-1990s	The site was passive.
1990s-2000s	The site was passive.
2000s-2011	The site was passive.
2012	The site was used to store fill material for the Grayhawk construction project on the north side of Tanglefoot Lane.

Source: EnviroNET Inc. (EnviroNET) 2012.

2.3 GEOLOGY AND HYDROLOGY

The site is in the Mississippi River Valley of the Great Plains Region of the Central Interior of the United States. The region is covered with glacial sediments that have eroded to form a landscape consisting of uplands bisected by rivers, creeks, and streams that discharge into the Mississippi River. Site-specific soil information provided in the United States Department of Agriculture Soil Survey for Scott County, Iowa, indicates that the site is mostly characterized by Downs Silt Loam, Lindley Loam, and Nodaway Silt Loam. The Lindley Loam and Downs Silt Loam range from 5-25% slopes (moderately sloping to steep), and from moderately eroded to severely eroded. They are well-drained soils with permeabilities ranging from moderately slow (Lindley Loam) to moderate (Downs Silt Loam). Runoff from these soils ranges from medium to very rapid. The Nodaway Silt Loam has 0-2% slopes, and is a moderately well-drained soil found in areas of recent deposition. Permeability of the Nodaway soil is moderate, it has a slow runoff rate, and its seasonal high water table is at depths of 3-5 feet.

Observed geology in the vicinity of the former landfill during prior investigations included surface fill materials, silty clay loam and sandy silt in thin seams, dense dry stiff to fat clays of glacial origin (various thicknesses), sand lenses, and sandy saturated substrate at depths of 12 to 15 feet. The fill area included degraded materials mixed with sand and clay, with glass, plastic, and debris mixed in at various intervals. Depth to groundwater varies from approximately 35 feet below grade near the roadway to approximately 1 foot below grade near the southern site boundary.

Observed geology in the vicinity of the former oil pit (see Appendix A, Figure 2) included surface debris in a limited area, silty clay loam and loess, and well-rounded oxidized sand. Thin, dry, discontinuous sand lenses were observed above a depth of 20 feet.

Direction of groundwater flow is to the south. Groundwater flows toward the un-named intermittent creek along the southern boundary of the site. Depth of groundwater at the southern end of the site is consistent with creek levels. The creek is an unnamed tributary of Crow Creek, which flows southeast toward the Mississippi River (Tetra Tech 2015).

2.4 PREVIOUS INVESTIGATIONS

The following are descriptions of previous investigations at the Tanglefoot Lane site:

EnviroNET – Phase I Environmental Site Assessment

EnviroNET conducted a Phase I Environmental Site Assessment (ESA) of the site in 2012. The ESA revealed that the site had previously served as a landfill for municipal waste, and possibly industrial waste. In addition, it was learned that Mr. Harry Meinert was in the “oil and chip” business, which included storage of waste oil for application to country roads for dust control. During the site inspection, EnviroNET observed presence of waste on the ground surface among weeds and trees. The type of waste observed consisted of glass, plastic, and metal containers including 55-gallon drums, scrap metal, and limited construction debris. Recognized environmental conditions (REC) identified during the Phase I ESA included:

- Unpermitted storage of municipal waste on the property
- Possible presence of hazardous/contaminated waste in containers, in soil, in leachate, and/or in groundwater
- Former storage of waste oil on the property in clay pits
- Presence of leachate drainage pipe extending from the fill area and draining downhill.

EnviroNET – Phase II Environmental Investigation

EnviroNET conducted a Phase II ESA in 2012/2013. Part of the Phase II ESA involved efforts to confirm or eliminate RECs identified during the Phase I ESA. During the Phase II ESA, contamination detected in soil and groundwater indicated significant breakdown of solvents. However, analytical results from soil and groundwater samples indicated that most of the contamination—including tetrachloroethene (PCE),

polychlorinated biphenyls (PCB), and trichloroethene (TCE)—had remained with the waste or in leachate within the waste. EnviroNET concluded that these contaminants would remain there, leaching slowly over time until removal of the waste. The un-named creek inside the southern property line was not assessed during the Phase II ESA.

2.5 WASTE CHARACTERISTICS

This section discusses waste characteristics of known contaminants at the Tanglefoot Lane site.

2.5.1 Tetrachloroethene

PCE is a chlorinated solvent with an ether-like odor, and is typically used in dry cleaning operations and as a degreaser for metal parts (Agency for Toxic Substances and Disease Registry [ATSDR] 1997). PCE is denser than water and tends to be found at greater depths with increasing distance from the source area.

PCE was introduced as a dry cleaning solvent in 1934, and by 1948 had replaced carbon tetrachloride (CCl₄) as the major chlorinated dry cleaning solvent used in the United States (petroleum solvents still dominated overall). By 1962, dry cleaning operations accounted for 90 percent of the PCE used in the United States. At one time, PCE had been mixed with grain protectants and certain liquid grain fumigants, but this was no longer approved by 1980 (Meister Publishing Company [Meister] 1980). PCE degrades to TCE.

2.5.2 Trichloroethene

TCE is a nonflammable, colorless liquid with a somewhat sweet odor and a sweet, burning taste (ATSDR 2003). It is used mainly as a solvent to remove grease from metal parts, and is an ingredient in adhesives, paint removers, typewriter correction fluids, and spot removers. TCE is denser than water and is typically found at greater depths with increased time or distance from the source area. TCE is reasonably anticipated to be a human carcinogen. Drinking small amounts of TCE for long periods may cause liver and kidney damage, impaired immune system function, and impaired fetal development in pregnant women (ATSDR 2003). The *cis* and *trans* isomers of 1,2-dichloroethene (DCE), as well as vinyl chloride, are common degradation products from TCE.

2.5.3 Polychlorinated Biphenyls

PCBs belong to a broad family of man-made organic chemicals known as chlorinated hydrocarbons. PCBs were domestically manufactured from 1929 until their manufacture was banned in 1979. They have a range of toxicity and vary in consistency from thin, light-colored liquids to yellow or black waxy solids. Due to their non-flammability, chemical stability, high boiling point, and electrical insulating properties, PCBs were used in hundreds of industrial and commercial applications including electrical, heat transfer, and hydraulic equipment; as plasticizers in paints, plastics, and rubber products; in pigments, dyes, and carbonless copy paper; and many other industrial applications. PCBs have been demonstrated to cause cancer, as well as a variety of other adverse health effects on the immune system, reproductive system, nervous system, and endocrine system (EPA 2014b).

3.0 PRELIMINARY ASSESSMENT ACTIVITIES

This section discusses PA activities at the site. Unless otherwise noted in this report, sampling and analytical procedures followed standard operating procedures (SOP) specified in the approved, site-specific Quality Assurance Project Plan (QAPP). For this PA, START members Adam Watkins and Keith Brown conducted sampling activities, and Quan Do, of Seagull Environmental, Inc., operated the Geoprobe® direct-push technology (DPT) unit. Sample locations were selected based on site knowledge and previous investigation results. Sampling-related activities were recorded in a site logbook, a copy of which is in Appendix C. In addition, a photographic log documenting site conditions and preliminary assessment activities is in Appendix B. A field sheet was completed for each sample collected as part of the PA; copies of all field sheets are in Appendix D. The field sheets included the following information: property ownership information, exact sample locations (depths and global positioning system [GPS] coordinates), and analyses to be performed. After sample collection, each sample was labeled and packaged accordingly, and placed in a cooler maintained at or below a temperature of 4 degrees Celsius (°C) from time of collection until submittal for laboratory analysis.

3.1 SUB-SURFACE SOIL SAMPLING

To assess the soil exposure pathway, soil borings were advanced and sampled at six locations (see Appendix A, Figure 3). By use of DPT, a soil sampler was advanced at each location. Soil cores were screened by use of a photoionization detector (PID) for presence of volatile organic compounds (VOC). Soil samples were collected within the two depth intervals exhibiting the highest VOC concentrations based on PID readings or visually apparent staining; if no indications of contamination were present, soil samples were collected within the depth interval of 2 to 4 feet bgs and from immediately above the water table.

Each sampled interval included grab samples for VOC and total petroleum hydrocarbons (TPH)-purgeables (gasoline-range organics [GRO]) analyses. Grab samples for VOC analysis were collected in accordance with EPA SW-846 Method 5035, consisting of two 40-milliliter vials preserved with sodium bisulfate containing approximately 5 grams of soil, and two unpreserved 40-milliliter vials packed with soil. The grab sample for TPH-purgeables analysis consisted of two additional unpreserved 40-milliliter vials packed with soil. Remaining soil from each sampled interval was homogenized and placed into three 8-ounce jars for analyses for semivolatile organic compounds (SVOC), metals (plus mercury), TPH-extractables (diesel-range organics [DRO] and oil-range organics [ORO]), pesticides, PCBs, and

herbicides. After completion of sampling, all DPT boreholes were plugged with bentonite from the bottom of the hole to the ground surface. Table 2 summarizes sub-surface soil samples collected during the PA.

TABLE 2
DPT SUBSURFACE SOIL SAMPLE SUMMARY
TANGLEFOOT LANE SITE
BETTENDORF, IOWA

EPA Sample Number	Sample Depth (ft bgs)	Latitude (degrees north)	Longitude (degrees west)	Time Sampled	Date Sampled
6910-101	3-5	41.560113	90.477432	17:00	9/14/2015
6910-102	5-7			17:15	
6910-103	2-4	41.560224	90.476593	09:45	9/15/2015
6910-104	14-16			10:10	
6910-105	14-16	41.560005	90.476380	12:10	
6910-106	2-4			12:22	
6910-107	2-4	41.559953	90.475395	16:10	
6910-108	10-12			16:25	
6910-109	4-6	41.560462	90.473504	10:40	9/16/2015
6910-110	13-15			11:00	
6910-111	2-4	41.559875	90.473288	12:28	
6910-112	12-14			12:40	

Notes:

bgs Below ground surface
EPA U.S. Environmental Protection Agency
ft Feet

3.2 GROUNDWATER SAMPLING

To assess the groundwater exposure pathway, groundwater samples were collected from temporary wells at four locations (see Appendix A, Figure 4). START attempted to collect groundwater samples from temporary wells at six locations; however, groundwater was not encountered at two locations. At each temporary well location, a Geoprobe® Screen Point 15 sampling apparatus containing a reusable stainless steel screen was advanced to just below the water table, where the screen was exposed to the aquifer. After the screen was deployed at the bottom of the well and about 1 gallon of water had been purged through the screen and tubing, a sample was collected through disposable polyethylene tubing by use of a pump or check valve placed at the bottom of the tubing.

Samples were analyzed for VOCs, TPH, SVOCs, metals (plus mercury, total and dissolved), pesticides, PCBs, and herbicides. Groundwater samples for VOCs analysis were collected in two 40-milliliter vials preserved with hydrochloric acid (HCl). The samples to undergo analysis for TPH-purgeables (GRO) were

collected in two unpreserved 40-milliliter vials. Water samples submitted for analyses for SVOCs, TPH-extractables (DRO and ORO), pesticides, PCBs, and herbicides were collected in 80-ounce amber glass jugs (three per sample). Water samples for metals (plus mercury) analysis were collected in 1-liter containers and preserved with nitric acid (HNO₃) to a pH <2. Samples filtered in the field by use of a 0.45 micrometer filter were analyzed for dissolved metals; unfiltered samples were analyzed for total metals. The groundwater sampler and rods were decontaminated following sampling at each location, and new tubing was used at each location. After completion of sampling activities, all temporary wells were plugged with bentonite from the bottom of the hole to the ground surface. Table 3 summarizes DPT groundwater samples collected during the PA.

TABLE 3
DPT GROUNDWATER SAMPLE SUMMARY
TANGLEFOOT LANE SITE
BETTENDORF, IOWA

EPA Identification Number	Sample Depth (ft bgs)	Latitude (degrees north)	Longitude (degrees west)	Time Sampled	Date Sampled
6910-201	22-26	41.560113	90.477432	17:30	9/14/2015
6910-202	16-20	41.560224	90.476593	10:30	9/15/2015
6910-203	16-20	41.560005	90.476380	13:80	
6910-203-FD	16-20				
6910-204	14-18	41.559957	90.475403	17:00	

Notes:

bgs Below ground surface
EPA U.S. Environmental Protection Agency
ft Feet

3.3 SOIL-GAS SAMPLING

Six soil-gas samples and an ambient air sample were collected. Soil-gas samples were collocated with DPT soil/groundwater sample locations. The ambient air sample was collected slightly upgradient of the site (see Appendix A, Figure 5).

Soil-gas samples were collected in accordance with Region 7 EPA/ ENSV SOP 4230.07 (*Geoprobe Operation*) and SOP 4231.2042 (*Soil-Gas Sampling*). At each location, by use of a DPT rig, steel rods were advanced to the desired depth, and then retracted about 6 inches to create a void space to allow collection of soil gas vapors. Samples were collected within the depth intervals exhibiting the highest VOC concentrations based on PID readings or visually apparent staining on soil cores; if no indications of

contamination were present, samples were collected from just above the water table. The soil-gas samples were collected through the steel rods via disposable polyethylene tubing connected to the bottom of the rod string and an evacuated Summa canister on the ground surface. By use of a vacuum pump, air in the tubing was evacuated prior to connection of the tubing to the Summa canister. After the Summa canister was connected to the tubing, a valve on the Summa canister was opened to begin sample collection. The Summa canister remained attached to the polyethylene tubing until the vacuum gauge indicated approximately 5 to 7 pounds per square inch (psi) remaining in the canister. Collection time depended on the soil type encountered during DPT activities (tighter soils, such as clays, take longer to sample).

The ambient air sample was collected into an evacuated Summa canister at approximately 5 feet above ground surface. To collect the ambient air sample, a valve on the Summa canister was slightly opened to begin sample collection. The valve on the Summa canister remained open until the vacuum gauge indicated approximately 5 to 7 psi remaining in the canister.

All samples were analyzed for VOCs. After completion of soil-gas sampling, all DPT boreholes were plugged with bentonite from the bottom of the hole to the ground surface. Table 4 summarizes ambient air and soil-gas samples collected during the PA.

TABLE 4
DPT SOIL-GAS SAMPLE SUMMARY
TANGLEFOOT LANE SITE
BETTENDORF, IOWA

EPA Identification Number	Sample Depth (ft bgs)	Latitude (degrees north)	Longitude (degrees west)	Time Sampled		Date Sampled
				Start	End	
6910-1	5.5-6.0	41.560092	90.477405	18:40	18:42	9/14/2015
6910-2	3.5-4.0	41.560224	90.476585	11:31	11:33	9/15/2015
6910-3	3.5-4.0	41.560005	90.476373	13:40	13:43	
6910-4	5.5-6.0	41.559957	90.475403	16:50	16:53	
6910-5	5.5-6.0	41.560462	90.473504	11:25	11:27	9/16/2015
6910-6	4.5-5.0	41.559867	90.473303	13:49	13:51	
6910-7	*	41.560709	90.476415	14:30	14:33	9/17/2015

Notes:

* Ambient Air Sample; no DPT involved in sample collection.

bgs Below ground surface

DPT Direct-push technology

EPA U.S. Environmental Protection Agency

ft Feet

3.4 SURFACE WATER AND SEDIMENT SAMPLING

To assess impacts on surface water and sediment, three surface water and four sediment samples were collected as part of PA sampling activities (see Appendix A, Figure 6).

Surface Water Sampling

Samples were analyzed for VOCs, TPH, SVOCs, metals (plus mercury, total and dissolved), pesticides, PCBs, and herbicides. Surface water samples collected for VOCs analysis were collected in two 40-milliliter vials preserved with HCl. The samples to undergo analysis for TPH-purgeables (GRO) were collected in two unpreserved 40-milliliter vials. Water samples submitted for analyses for SVOCs, TPH-extractables (DRO and ORO), pesticides, PCBs, and herbicides were collected in 80-ounce amber glass jugs (three per sample). Water samples for metals (plus mercury) analysis were collected in 1-liter containers and preserved with HNO₃ to a pH <2. Samples filtered in the field with a 0.45 micrometer filter were analyzed for dissolved metals; unfiltered samples were analyzed for total metals. Table 5 summarizes surface water samples collected during the PA.

TABLE 5
SURFACE WATER SAMPLE SUMMARY
TANGLEFOOT LANE SITE
BETTENDORF, IOWA

EPA Identification Number	Latitude (degrees north)	Longitude (degrees west)	Time Sampled	Date Sampled
6910-205	41.559677	90.472783	17:30	9/16/2015
6910-206	41.559331	90.477689	09:10	9/17/2015
6910-207	41.559252	90.476129	13:50	

Note:

EPA U.S. Environmental Protection Agency

Sediment Sampling

Sediment samples were collected from the top 6 inches of sediment by use of hand-held, disposable, stainless-steel spoons. At each sample location, sediment was collected for VOC and TPH-purgeables (GRO) analyses. The grab sample for VOC analysis was collected in accordance with EPA SW-846 Method 5035; it consisted of two 40-milliliter vials preserved with sodium bisulfate containing approximately 5 grams of soil, and two unpreserved 40-milliliter vials packed with soil. The grab sample for TPH-purgeables analysis consisted of two additional unpreserved 40-milliliter vials packed with

sediment. Additional sediment was then homogenized and placed into three 8-ounce jars for analyses for SVOC, metals (plus mercury), TPH-extractables (DRO and ORO), pesticides, PCBs, and herbicides.

Table 6 summarizes sediment samples collected as part of the PA.

TABLE 6
SEDIMENT SAMPLE SUMMARY
TANGLEFOOT LANE SITE
BETTENDORF, IOWA

EPA Identification Number	Latitude (degrees north)	Longitude (degrees west)	Time Sampled	Date Sampled
6910-113	41.559677	90.472783	17:35	9/16/2015
6910-114	41.559334	90.477716	09:24	9/17/2015
6910-114-FD	41.559334	90.477716	09:24	
6910-115	41.559518	90.477745	11:35	
6910-116	41.559252	90.476129	14:20	

Note:

EPA U.S. Environmental Protection Agency

3.5 QUALITY CONTROL SAMPLING

Field quality control (QC) sampling for this PA included two laboratory-supplied aqueous trip blank samples, one aqueous rinsate blank sample, one aqueous field blank sample, and one air blank sample. Analytical data from the trip blanks were referenced to determine whether contamination had been introduced during transportation of the containers and samples. Additional QC sampling consisted of collecting a rinsate blank sample through a Geoprobe® groundwater sampler. The rinsate blank was analyzed to determine adequacy of decontamination procedures. Furthermore, two field blanks samples were collected to assess field/lab-introduced contamination.

3.6 DEVIATIONS FROM THE QUALITY ASSURANCE PROJECT PLAN

The following deviations from the QAPP occurred during field sampling:

- The QAPP did not specify collection of ambient air samples as part of PA sampling activities. However, an ambient air sample was collected slightly upgradient of the site to assess ambient air quality.
- The QAPP specified use of a PID to screen soils for presence of elevated concentrations of VOCs. However, the PID used for screening soils had battery charging issues, and use of it was discontinued after the first day of field work. This resulted in choices of soil sampling intervals based on visible soil staining, detection of odor, or the default sampling intervals stipulated in the QAPP.
- The QAPP specified submittal of one trip blank sample to EPA Region 7 laboratory. However, two trip blank samples were submitted because PA samples were delivered on separate days.
- The QAPP specified collection of groundwater samples at six temporary monitoring wells. However, groundwater samples were collected from only four temporary monitoring wells because groundwater was not encountered at two proposed groundwater sampling locations.
- The QAPP specified collocations of surface water and sediment sample collections. However, at one sample location, no surface water was present. Therefore, no surface water sample was collected at that sample location.

4.0 ANALYTICAL DATA SUMMARY

This section discusses analytical results from environmental samples collected during the PA at the site.

4.1 SUBSURFACE SOIL SAMPLING

On September 14-16, 2015, 13 subsurface soil samples, including 1 field duplicate, were collected from six soil borings at the site (see Appendix A, Figure 3). Samples were submitted on September 18, 2015, to EPA Region 7 laboratory for VOCs, TPH, SVOCs, metals (plus mercury), pesticides, PCBs, and herbicides analyses as part of Analytical Services Request (ASR) 6910. Analytical results were compared to EPA Superfund Chemical Data Matrix (SCDM) hazardous substance benchmarks for soil exposure pathway (EPA 2014a), and are summarized in Table 7. The complete laboratory data package for ASR 6910 is in Appendix E.

TABLE 7

ANALYTICAL RESULTS FROM DPT SUBSURFACE SOIL SAMPLES
TANGLEFOOT LANE SITE
BETTENDORF, IOWA

EPA Identification Number	Sample Depth Interval (ft bgs)	Analytes and Results (µg/kg)																						
		Herbicides				Metals																		
		2,4,5-T	2,4-D	Dicamba	Pentachlorophenol	Mercury	Aluminum	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Thallium	Vanadium	Zinc
SCDM NCR*		700,000	200,000	NE	300,000	20,000	70,000,000	30,000	10,000,000	20,000	30,000	NE	200,000	20,000	3,000,000	50,000,000	NE	NE	10,000,000	1,000,000	NE	700	700,000	20,000,000
SCDM CR*		NE	NE	NE	1,000	NE	NE	710	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
6910-101	3-5	13	ND	ND	ND	ND	9,430,000	9,300	103,000	900	ND	2,170,000	16,000	23,800	27,300	27,500	11,100	1,830	755,000	23,600	ND	ND	33,100	36,100
6910-102	5-7	ND	ND	ND	ND	ND	5,380,000	7,400	124,000	ND	ND	2,210,000	12,200	9,700	16,400	27,900	8,800	1,600	1,940,000	20,800	ND	ND	18,000	38,100
6910-103	2-4	ND	150	ND	150	ND	9,700,000	7,900	70,100	640	5,300	2,740,000	19,300	9,400	24,400	23,600	86,200	1,780	247,000	20,200	636,000	ND	27,800	129,000
6910-104	14-16	ND	ND	ND	ND	ND	5,200,000	ND	76,100	ND	1,400	7,090,000	11,700	ND	20,000	9,950	116,000	2,970	115,000	15,000	563,000	ND	17,600	83,800
6910-105	14-16	ND	ND	21	9.4	ND	8,240,000	5,300	113,000	ND	1,400	9,230,000	32,000	8,900	34,500	21,800	199,000	4,530	235,000	26,900	ND	ND	23,600	159,000
6910-106	2-4	ND	ND	ND	66 J	140	3,560,000	4,900	72,100	ND	2,200	11,300,000	20,800	6,100	48,500	26,100	193,000	5,340	281,000	14,800	ND	ND	6,600	218,000
6910-106-FD	2-4	ND	ND	ND	28	120	3,540,000	7,300	67,800	ND	2,400	5,500,000	25,700	7,200	66,400	38,200	143,000	1,620	298,000	20,300	ND	ND	4,900	231,000
6910-107	2-4	ND	ND	ND	ND	ND	4,490,000	5,400	64,900	470	ND	ND	8,600	7,200	12,100	15,500	8,200 J	782	719,000	14,600	ND	ND	17,200	26,500
6910-108	10-12	ND	ND	ND	ND	ND	1,900,000	ND	22,100	ND	ND	ND	7,000	5,600	6,600	8,310	7,400 J	520	213,000	12,000	ND	ND	14,000	12,100
6910-109	4-6	ND	ND	ND	ND	ND	8,140,000	8,500	103,000	590	ND	14,300,000	15,300	8,500	16,600	17,800	11,500	9,360	503,000	23,200	542,000	ND	26,400	38,600
6910-110	13-15	ND	ND	ND	ND	ND	5,470,000	ND	60,300	ND	ND	48,900,000	11,600	ND	10,700	11,700	ND	26,800	298,000	10,500	ND	3,100 J	20,000	26,200
6910-111	2-4	ND	ND	ND	ND	ND	5,350,000	10,300	93,300	ND	ND	ND	13,400	18,500	13,100	15,100	11,000	1,100	1,260,000	23,500	ND	ND	23,900	27,300
6910-112	12-14	ND	ND	ND	ND	ND	8,900,000	5,600	87,200	650	ND	13,700,000	15,800	12,100	15,100	13,700	10,500	8,000	584,000	16,700	ND	ND	24,700	30,600

TABLE 7 (Continued)

ANALYTICAL RESULTS FROM DPT SUBSURFACE SOIL SAMPLES
TANGLEFOOT LANE SITE
BETTENDORF, IOWA

EPA Identification Number	Sample Depth Interval (ft bgs)	Analytes and Results (µg/kg)																								
		PCB	Pesticides						bis(2-Ethylhexyl)phthalate (SVOC)	SVOC TPH																TPH GRO (Volatile TPH)
		Aroclor 1254	G-BHC	trans-Chlordane	p,p'-DDD	p,p'-DDE	Dieldrin	Heptachlor Epoxide		TPH DRO	TPH ORO	Acetone	Benzene	2-Butanone	Chloroethane	Cyclohexane	cis-1,2-Dichloroethene	Methylcyclohexane	Tetrachloroethene	Toluene	1,1,1-Trichloroethane	Trichloroethene	Vinyl Chloride			
SCDM NCR*		1,000	20,000	30,000	NE	NE	3,000	1,000	1,000,000	NE	NE	70,000,000	300,000	40,000,000	NE	NE	20,000	NE	400,000	6,000,000	100,000,000	30,000	200,000	NE		
SCDM CR*		300	580	1,800	260,000	1,800	40	70	10,000	NE	NE	NE	11,000	NE	NE	NE	NE	300,000	NE	NE	8,300	93	NE			
6910-101	3-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	49	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
6910-102	5-7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	49	ND	12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
6910-103	2-4	180	ND	ND	4.6	ND	ND	ND	ND	509,000	666,000	ND	ND	ND	ND	ND	6,700	ND	ND	1,300	ND	ND	ND	12,300		
6910-104	14-16	81	ND	ND	8.5	ND	ND	ND	ND	36,500	ND	27,000	ND	ND	ND	ND	230,000	ND	ND	33,000	ND	52,000	35,000	53,700		
6910-105	14-16	180	ND	ND	ND	ND	ND	ND	410	39,700	123,000	3,000	ND	ND	ND	ND	11,000	ND	ND	ND	ND	ND	3,000	21,800		
6910-106	2-4	890	ND	ND	ND	ND	ND	ND	12,000	231,000	591,000	3,100	ND	ND	ND	ND	ND	ND	960	470	ND	1,100	ND	ND		
6910-106-FD	2-4	1,500	2.7	6.3	7.9	ND	13	6.1	6,000	NA	NA	98	31	19	53	97	150	140	43	100	ND	50	ND	NA		
6910-107	2-4	ND	ND	ND	ND	ND	ND	ND	970	ND	ND	54	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
6910-108	10-12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	23	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
6910-109	4-6	420	ND	ND	ND	6.8	6.1	ND	1,900	ND	ND	87	ND	23	ND	ND	ND	ND	26	ND	65	100	ND	ND		
6910-110	13-15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,900	ND	ND	ND	ND	ND	ND	ND	ND	320	2,200	ND	ND		
6910-111	2-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	83	ND	14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
6910-112	12-14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,400	ND	ND	ND	ND	ND	ND	ND	ND	380	460	ND	ND		

Notes:

* SCDM hazardous substance benchmarks for soil exposure pathway.

Bold value indicates a concentration that exceeds an SCDM benchmark.

bgs

Below ground surface

BHC

Benzene hexachloride

CR

Cancer risk screening concentration

DDD

Dichlorodiphenyldichloroethane

DDE

Dichlorodiphenyldichloroethene

DPT

Direct-push technology

DRO

Diesel-range organics

EPA

U.S. Environmental Protection Agency

FD

Field duplicate

ft

Feet

GRO

Gasoline-range organics

J

Estimated value

MCL

Maximum Contaminant Level

µg/kg

Micrograms per kilogram

NCR

Non-cancer risk

NA

Not analyzed

ND

Not detected

NE

Not established

ORO

Oil-range organics

PCB

Polychlorinated biphenyls

SCDM

Superfund Chemical Data Matrix

SVOC

Semivolatile Organic Compound

TPH

Total petroleum hydrocarbons

2,4-D

2,4-Dichlorophenoxyacetic acid

2,4,5-T

2,4,5-Trichlorophenoxyacetic acid

Analytical results from DPT subsurface soil sampling indicated detections of 46 different substances. Among these detections, exceedances of EPA SCDM benchmarks were by concentrations of the metals cobalt and thallium; aroclor 1254 (PCB); bis(2-ethylhexyl)phthalate (SVOC); and the VOCs *cis*-1,2-dichloroethene, TCE, and vinyl chloride. Estimated PCE concentrations ranged from 26 to 960 micrograms per kilogram (µg/kg); estimated TCE concentrations ranged from 50 to 52,000 µg/kg; and estimated vinyl chloride concentrations ranged from 3,000 to 35,000 µg/kg. Analytical results also indicated elevated concentrations of TPH (DRO, GRO, and ORO) in multiple samples collected within the landfill area. Overall, samples collected within the landfill and oil pit areas generally contained higher concentrations of contaminants than did samples collected within other areas at the site.

4.2 GROUNDWATER SAMPLING

On September 14-15, 2015, five groundwater samples, including one field duplicate, were collected from four temporary wells at the site (see Appendix A, Figure 4). Samples were submitted on September 17, 2015, to EPA Region 7 laboratory for VOCs, TPH, SVOCs, metals (plus mercury, total and dissolved), pesticides, PCBs, and herbicides analyses as part of ASR 6910. Analytical results were compared to EPA SCDM hazardous substance benchmarks for groundwater pathway in drinking water (EPA 2014a), and are summarized in Table 8. The complete laboratory data package for ASR 6910 is in Appendix E.

TABLE 8
ANALYTICAL RESULTS FROM DPT GROUNDWATER SAMPLES
TANGLEFOOT LANE SITE
BETTENDORF, IOWA

EPA Identification Number	Sample Depth Interval (ft bgs)	Analytes and Results (µg/L)																																
		Pentachlorophenol (Herbicide)	Metals – Dissolved								Metals – Total											SVOCs			Volatile Organic Compounds								TPH GRO (Volatile TPH)	
			Arsenic	Barium	Chromium	Cobalt	Manganese	Nickel	Selenium	Zinc	Arsenic	Barium	Beryllium	Chromium	Cobalt	Copper	Lead	Manganese	Nickel	Selenium	Vanadium	Zinc	Bis(2-Ethylhexyl)phthalate	4-Methylphenol	Naphthalene	Chloroethane	1,1-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	Toluene	Trichloroethene	1,1,2-Trichlorotrifluoroethane		Vinyl Chloride
SCDM MCL*		1	10	2,000	100	NE	NE	NE	50	NE	10	2,000	100	NE	NE	1,300	15	NE	NE	50	NE	NE	NE	NE	NE	NE	7	70	1,000	5	NE	2	NE	
SCDM NCR*		70	4	3,000	40	4	2,100	300	70	4,000	4	3,000	40	4	4	600	NE	2,100	300	70	100	4,000	300	1,000	300	NE	3,000	700	30	1,000	7	NE	40	NE
SCDM CR*		0.1	0.044	NE	NE	NE	NE	NE	NE	NE	0.044	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	1.5	NE	NE	NE	11	NE	NE	NE	1	NE	0.017	NE	
6910-201	22-26	ND	ND	88.8	ND	ND	22.2	2.1	ND	4.4	ND	112	ND	15.7	8.9	14.6	19.8	151	20.1	ND	27.7	45.4	ND	ND	ND	ND	ND	ND	ND	ND	0.72	ND	ND	ND
6910-202	16-20	0.057	ND	103	2.0	ND	452	3.6	ND	19.7	16.7	178	ND	20.9	12.0	20.1	20.0	787	24.7	ND	26.6	72.5	9.0	9.0	2.6	84	170	ND	4,500	99	540	2,700	690	8,330
6910-203	16-20	ND	5.0	104	ND	1.2	485	1.8	ND	29.7	16.7	94.7	ND	13.4	6.0	10.7	16.4	559	9.9	ND	20.0	37.7	ND	ND	ND	ND	3.1	0.85	76	1.3	94	ND	19	293
6910-203-FD	16-20	ND	5.2	82.0	ND	1.2	502	1.9	ND	15.4	17.0	98.0	ND	14.0	6.3	11.4	15.9	575	10.5	ND	20.9	38.5	ND	ND	ND	ND	2.8	ND	58	1.3	72	ND	16	311
6910-204	14-18	ND	ND	118	ND	5.0	380	6.8	10.3	3.9	14.5	309	1.6	31.3	38.6	38.3	31.3	1,490	49.1	9.0	58.0	78.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:
* SCDM hazardous substance benchmarks for groundwater pathway in drinking water.
Bold value indicates a concentration that exceeds an SCDM benchmark.

- bgs Below ground surface
- CR Cancer risk screening concentration
- DPT Direct-push technology
- EPA U.S. Environmental Protection Agency
- FD Field duplicate
- ft Feet
- GRO Gasoline-range organics
- J Estimated value
- MCL Maximum Contaminant Level
- µg/L Micrograms per liter
- NCR Non-cancer risk
- ND Not detected
- NE Not established
- RfD Reference dose screening concentration
- SCDM Superfund Chemical Data Matrix
- SVOC Semivolatile organic Compound
- TPH Total petroleum hydrocarbons

Analytical results from DPT groundwater sampling indicated detections of 32 different substances. Among these detections, exceedances of EPA SCDM benchmarks were by concentrations of the metals arsenic (total and dissolved), chromium, cobalt (total and dissolved), and lead, and the VOCs 1,1-dichloroethane, 1,1-dichloroethene, *cis*-1,2-dichloroethene, TCE, and vinyl chloride. Estimated TCE concentrations ranged from 0.72 to 540 µg/L. Analytical results also indicated significant concentrations of TPH GRO in multiple samples collected within the landfill area. Overall, samples collected within the landfill area contained higher concentrations of contaminants than did samples collected within other areas at the site.

4.3 SOIL-GAS SAMPLING

On September 14-17, 2015, six soil-gas samples and one ambient air sample were collected at or near the site (see Appendix A, Figure 4). Soil-gas samples were collected from six soil borings at the site, and the ambient air sample was collected slightly upgradient of the site. Samples were submitted on September 18, 2015, to EPA Region 7 laboratory for VOC analysis as part of ASR 6910. Analytical results for soil-gas samples were compared to EPA SCDM hazardous substance benchmarks for air pathway (EPA 2014a), and are summarized in Table 9. Results from the ambient air sample are also summarized in Table 9. The complete laboratory data package for ASR 6910 is in Appendix E.

TABLE 9
ANALYTICAL RESULTS FROM DPT SOIL-GAS SAMPLES
TANGLEFOOT LANE SITE
BETTENDORF, IOWA

EPA Identification Number	Sample Depth Interval (ft bgs)	Analytes and Results (µg/m³)																									
		Acetone	Benzene	2-Butanone	Carbon Disulfide	Carbone Tetrachloride	Chloroethane	Chloroform	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	Ethyl Benzene	Heptane	Hexane	Methylene Chloride	Naphthalene	Tetrachloroethene	Toluene	1,1,1-Trichloroethane	Trichloroethene	1,1,2-Trichlorotrifluoroethane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl Chloride	m and/or p-Xylene	o-Xylene
SCDM NAAQS/NESHAPS*		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
SCDM NCR*		31,000	30	5,000	700	100	10,000	90	NE	7	200	NE	1,000	NE	NE	600	3	40	5,000	5,000	2	NE	NE	NE	100	100	100
SCDM CR*		NE	0.31	NE	NE	0.4	NE	0.1	1.5	0.093	NE	NE	0.97	NE	NE	90	0.071	NE	NE	NE	0.4	NE	NE	NE	0.16	NE	NE
6910-1	5.5-6.0	100	4.15	19.1	52.8	0.88	ND	41.7	ND	0.405	ND	ND	10.6	10	8.6	ND	14.3 J	3.39	35	ND	1.4	ND	35.5	8.75	ND	48.5	14.6
6910-2	3.5-4.0	ND	8,940	ND	ND	ND	110,000	ND	ND	4,850	ND	789,000	ND	79,500	268,000	ND	ND	9,490	1,330,000	ND	ND	ND	ND	ND	1,240,000	ND	ND
6910-3	3.5-4.0	ND	447	ND	ND	440	8,940	ND	2,270	243	ND	8,800	ND	5,160	35,100	ND	ND	3,660	8,780	ND	8,760	ND	ND	ND	2,350	ND	ND
6910-4	5.5-6.0	ND	2.24	ND	ND	ND	8.04	ND	ND	ND	ND	60	19.7	23.6	37.9	ND	ND	10.2	634	ND	16.7	ND	68.3	29.2	48.5	75.3	23.7
6910-5	5.5-6.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	24,400	24,600	ND	ND	ND	ND	ND	41,700	9,980	545,000	924,000	37,900	ND	ND	1,530	ND	ND
6910-6	4.5-5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	70.5	ND	6,330	3,090	1,230	ND	ND	ND	ND	ND
6910-7**	NA	24.3	1.02	3.6	ND	1.26	8.28	ND	ND	0.405	ND	67.6	ND	7.7	26.1	ND	ND	1.08	133	ND	6.45	ND	ND	ND	84.4	ND	ND

Notes:

* SCDM hazardous substance benchmarks for air pathway.

** Ambient air sample

Bold value indicates a soil-gas concentration that exceeds an SCDM benchmark.

bgs Below ground surface
CR Cancer risk screening concentration
DPT Direct-push technology
EPA U.S. Environmental Protection Agency
FD Field duplicate
J Estimated value
µg/m³ Micrograms per cubic meter
NAAQS National Ambient Air Quality Standards
NESHAPS National Emissions Standards for Hazardous Air Pollutants
NCR Non-cancer risk
NA Not applicable
ND Not detected
NE Not established
SCDM Superfund Chemical Data Matrix

Analytical results from DPT soil-gas and ambient air sampling indicated detections of 26 VOCs. Among detections in soil-gas samples, exceedances of EPA SCDM benchmarks were by concentrations of 14 VOCs including PCE/TCE and their breakdown products. In the ambient air sample, concentrations of five VOCs exceeded EPA SCDM benchmarks. Overall, samples collected within the landfill and oil pit areas contained concentrations of contaminants higher than in samples collected within other areas.

4.4 SURFACE WATER AND SEDIMENT SAMPLING

This section discusses analytical results from surface water and sediment samples collected during the PA at the site.

Surface Water

On September 16-17, 2015, three surface water samples were collected at the site (see Appendix A, Figure 4). Samples were submitted on September 18, 2015, to EPA Region 7 laboratory for VOCs, TPH, SVOCs, metals (plus mercury, total and dissolved), pesticides, PCBs, and herbicides analyses as part of ASR 6910. Analytical results were compared to EPA SCDM hazardous substance benchmarks for surface water pathway in drinking water (EPA 2014a), and are summarized in Table 10. The complete laboratory data package for ASR 6910 is in Appendix E.

TABLE 10

**ANALYTICAL RESULTS FROM SURFACE WATER SAMPLES
TANGLEFOOT LANE SITE
BETTENDORF, IOWA**

EPA Identification Number	Analytes and Results (µg/L)																	
	Dicamba (Herbicide)	Metals – Dissolved			Metals – Total									VOCs				TPH GRO (Volatile TPH)
		Barium	Manganese	Nickel	Barium	Chromium	Cobalt	Copper	Lead	Manganese	Nickel	Vanadium	Zinc	Acetone	cis-1,2- Dichloroethene	trans-1,2- Dichloroethene	Vinyl Chloride	
SCDM MCL*	NE	2,000	NE	NE	2,000	100	NE	1,300	15	NE	NE	NE	NE	NE	70	100	2	NE
SCDM NCR*	NE	3,000	2,100	300	3,000	40	4	600	NE	2,100	300	100	4,000	10,000	30	300	40	NE
SCDM CR*	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
6910-205	ND	207	195	2.2	248	3.7	2.1	4.4	2.9	299	5.3	7.3	14.1	6.4	0.59	ND	ND	ND
6910-206	ND	214	520	2.2	224	ND	1.0	ND	ND	532	2.3	ND	ND	ND	3.6	1.5	1.2	53.9
6910-207	0.27	212	415	2.2	220	ND	ND	ND	ND	428	2.2	ND	ND	ND	1.9	0.66	ND	ND

Notes:

* SCDM hazardous substance benchmarks for surface water pathway in drinking water.

Bold value indicates a concentration that exceeds an SCDM benchmark.

CR Cancer risk screening concentration
 EPA U.S. Environmental Protection Agency
 GRO Gasoline-range organics
 J Estimated value
 MCL Maximum Contaminant Level
 µg/L Micrograms per liter
 mg/L Milligrams per liter
 NCR Non-cancer risk
 ND Not detected
 NE Not established
 RfD Reference dose screening concentration
 SCDM Superfund Chemical Data Matrix
 SVOC Semivolatile organic compound
 TPH Total petroleum hydrocarbons

Analytical results from surface water sampling indicated detections of 18 different substances. Significant detections in surface water samples included dicamba (pesticide), *cis*-1,2-dichloroethene (VOC), *trans*-1,2-dichloroethene (VOC), vinyl chloride (VOC), and TPH GRO. None of the detections exceeded an EPA SCDM drinking water benchmark.

Sediment

On September 16-17, 2015, five sediment samples, including one field duplicate, were collected at the site (see Appendix A, Figure 3). Samples were submitted on September 18, 2015, to EPA Region 7 laboratory for VOCs, TPH, SVOCs, metals (plus mercury), pesticides, PCBs, and herbicides analyses as part of ASR 6910. Analytical results are summarized in Table 11. The complete laboratory data package for ASR 6910 is in Appendix E.

TABLE 11
ANALYTICAL RESULTS FROM SEDIMENT SAMPLES
TANGLEFOOT LANE SITE
BETTENDORE, IOWA

EPA Identification Number	Analytes and Results (µg/kg)																						
	Metals																SVOCs			VOCs			
	Aluminum	Arsenic	Barium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Thallium	Vanadium	Zinc	Benzo(b)fluoranthene	Chrysene	Pyrene	Acetone	2-Butanone	Carbon Disulfide	Toluene
6910-113	8,730,000	7,100	145,000	23,800,000	15,700	7,900	18,400	17,400	14,600	6,090,000	552,000	17,700	785,000	ND	26,100	61,100	ND	ND	ND	86	17	ND	ND
6910-114	4,550,000	10,800	107,000	56,900,000	10,900	9,600	13,200	18,800	19,100	29,600,000	851,000	14,800	ND	2,900 J	23,300	32,600	ND	ND	ND	58	ND	57	ND
6910-114-FD	5,000,000	9,200	123,000	27,600,000	11,400	9,500	13,700	17,200	19,300	8,770,000	530,000	15,800	ND	ND	25,100	37,100	300	ND	420	170 J	ND	81	ND
6910-115	7,680,000	9,000	128,000	21,700,000	13,700	ND	17,100	16,300	14,100 J	10,300,000	599,000	15,900	1,110,000	ND	24,200	56,600	ND	ND	ND	180	27	ND	14
6910-116	6,080,000	7,000	103,000	10,700,000	11,800	9,200	13,600	13,900	15,700	4,880,000	688,000	14,800	579,000	ND	22,400	47,000	310	230	350	130	ND	15	ND

Notes:

SCDM has not established hazardous substance benchmarks for sediment pathway.

EPA U.S. Environmental Protection Agency
J Estimated value
µg/kg Micrograms per kilogram
ND Not detected
SCDM Superfund Chemical Data Matrix
SVOC Semivolatile organic compound
VOC Volatile organic compound

Analytical results from sediment sampling indicated detections of 23 different substances. Significant detections in sediment samples included the SVOCs benzo(b)fluoranthene, chrysene, and pyrene, and the VOCs acetone, 2-butanone, carbon disulfide, and toluene. EPA has not established hazardous substance benchmarks for the sediment pathway. Therefore, none of the detections exceeded an EPA SCDM benchmark.

4.5 QUALITY CONTROL

Two laboratory-supplied aqueous trip blanks, one aqueous rinsate blank, one aqueous field blank, and one air blank were collected as part of quality assurance (QA)/QC sampling during the PA at the site. Samples were submitted to EPA Region 7 laboratory for analysis as part of ASR 6910. The complete laboratory data package for ASR 6799 is in Appendix E.

Analytical results from the aqueous rinsate and trip blanks samples indicated only trace amounts of the VOCs acetone and chloroform. Acetone and chloroform were also detected in the aqueous field blank sample, in addition to trace detections of metals barium, copper, manganese, and zinc. Acetone and chloroform are common organic laboratory contaminants frequently detected during analyses of environmental media. No other detections in aqueous QA/QC samples occurred.

Analytical results from the air field blank sample indicated only trace amounts of the VOCs hexane and methylene chloride. Hexane was detected at a concentration of 1.87 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$), and methylene chloride was found at 16.5 $\mu\text{g}/\text{m}^3$. No other detections of VOCs in air QA/QC samples occurred.

5.0 HAZARD RANKING SYSTEM FACTORS

This section discusses sources of contamination and various contaminant migration pathways evaluated under the HRS.

5.1 SOURCES OF CONTAMINATION

START collected soil, groundwater, soil-gas, surface water, and sediment samples within, adjacent to, and downgradient of potential source areas at the site. Contaminants were detected within all five media. Moreover, multiple substances were detected at concentrations exceeding EPA SCDM benchmarks. Some of the most significant contaminants of concern detected during PA sampling were PCE and TCE and their respective breakdown products. Analytical results suggest that foremost sources of contamination at the site likely are closely proximate to the landfill and oil pit areas (see Appendix A, Figure 2).

5.2 GROUNDWATER PATHWAY

This section discusses groundwater targets and pathway conclusions drawn from analytical results from groundwater sampling at the site. During this PA, groundwater samples were collected from four DPT temporary wells (see Appendix A, Figure 4). An observed release of metals and PCE/TCE and their breakdown products have been documented.

5.2.1 Groundwater Targets

The groundwater exposure pathway is evaluated in part by calculating the number of people served by water wells within 4 miles of the site, and determining whether these people are actually or potentially exposed to contamination associated with the site. According to the Iowa Department of Natural Resources (IDNR) registered well database, 451 private wells permitted for drinking water are within a 4-mile radius of the site (see Appendix A, Figure 7). The median population per household in Scott County is 2.44 persons, which calculates to approximately 1,101 potential drinking water targets associated with domestic wells (U.S. Census Bureau 2010). However, this does not include private wells within 4 miles of the site not registered with the State. The source of municipal water in Bettendorf is the Mississippi River (American Water 2015).

5.2.2 Groundwater Pathway Conclusions

The groundwater pathway appears to pose a potentially significant threat to public health as a result of a documented release at the site of hazardous substances to groundwater, including metals and PCE/TCE and

their breakdown products. Considering the number of wells within a 4-mile radius of the site, drinking water targets impacted by the site could be numerous. Moreover, the extent of groundwater contamination associated with the site is unknown.

5.3 SURFACE WATER PATHWAY

This section discusses surface water targets and pathway conclusions drawn from analytical results from surface water sampling at the site. During this PA, surface water samples were collected from a creek downgradient of contamination source areas (see Appendix A, Figure 2). Samples indicated several significant detections of contaminants including metals and VOCs. Surface water from this creek eventually discharges into the Mississippi River.

5.3.1 Surface Water Targets

Surface water exposure is evaluated in part by calculating the number of people served by surface water intakes downstream of the site, and determining whether these people are actually or potentially exposed to hazardous substances. The source of municipal water in Bettendorf is the Mississippi River (American Water 2015). Intakes for drinking water are known to exist downriver from the site. Additional targets appear to be livestock and aquatic life inhabiting the areas around drainage runoff ditches and ponds downgradient of contamination source areas.

5.3.2 Surface Water Pathway Conclusions

Three surface water samples were collected from the creek running east along the southern boundary of the site. Several significant detections of contaminants occurred in surface water samples, but the concentrations were low enough that no EPA SCDM benchmarks were exceeded. The source of municipal water in Bettendorf is the Mississippi River, and intakes for drinking water are known to exist downriver from the site. However, it is highly unlikely that contamination at the site has impacted drinking water due to the relatively low concentrations found in surface water and sediment, the distance to the intakes, and the large volume of water associated with the Mississippi River. Therefore, the surface water pathway does not appear to pose a threat to public health.

5.4 SOIL AND SEDIMENT EXPOSURE

This section discusses soil and sediment targets and pathway conclusions drawn from analytical results from soil/sediment sampling at the site. During this PA, soil samples were collected from six soil borings (see

Appendix A, Figure 3), and sediment samples were collected from the creek running east along the southern boundary of the site (see Appendix A, Figure 6). Significant detections of multiple contaminants occurred in samples from both media.

5.4.1 Soil and Sediment Exposure Targets

The soil and sediment exposure pathway would pose risk from contamination within areas where people live or work. Therefore, the only potential targets appear to be those people residing or working near the site.

5.4.2 Soil and Sediment Pathway Conclusions

Thirteen soil samples and five sediment samples were collected at the site. Significant detections of multiple contaminants occurred in samples from both media. Therefore, soil and sediment pathways appear to pose a threat to the public health of those who reside or work near the site.

5.5 AIR PATHWAY

This section discusses air targets and pathway conclusions drawn from analytical results from soil-gas/ambient air sampling at the site. As part of the PA, six soil-gas and one ambient air samples were collected (see Appendix A, Figure 5). Samples indicated significant detections of contaminants including PCE/TCE and their breakdown products.

5.5.1 Air Pathway Targets

Approximately 50,457 people reside within a 4-mile radius of the site (U.S. Census Bureau 2010).

5.5.2 Air Pathway Conclusions

The air pathway of HRS addresses outdoor air only. Based on abundance of VOC contamination already documented at the site and high density of people who reside/work near the site, potential for exposure to contamination via the air pathway is significant.

6.0 EMERGENCY RESPONSE CONSIDERATIONS

The National Contingency Plan [40 *Code of Federal Regulations* 300.415(b)(2)] authorizes EPA to consider emergency response actions at those sites that pose an imminent threat to human health or the environment. Based on data obtained during this PA, a referral to EPA Region 7 for emergency response activities does not appear necessary at this time. Indoor air and subslab vapor sampling should be performed at nearby residences to determine if removal actions may be warranted.

7.0 SUMMARY

The EPA Region 7 Superfund Division tasked Tetra Tech to conduct a PA at the site in Bettendorf, Iowa. The PA was in response to discovery of contaminants at the site. The purpose of this investigation was to evaluate whether any threats to human health or the environment exist as a result of any contamination associated with the site.

As part of the PA, 13 soil, 5 groundwater, 3 surface water, and 5 sediment samples were collected at the site and submitted for VOCs, TPH, SVOCs, metals (plus mercury), pesticides, PCBs, and herbicides analyses. In addition, 6 soil-gas and 1 ambient air samples were collected for VOCs. Numerous detections of contaminants occurred in samples from all of these media, including PCE/TCE and their breakdown products. Main sources of contamination are likely near the landfill and oil pit areas of the site where disposal of various substances is known to have occurred. The extent of contamination at the site remains unknown. Therefore, its impact on human health or the environment is also unknown.

The pertinent HRS factors associated with the site are as follows:

- Detections of contaminants occurred in samples collected within all media sampled during the PA.
- The extent of contamination associated with the site is unknown.
- The air pathway addressed by HRS is the ambient (outdoor air) only.
- Observed releases to groundwater and surface water migration pathways have been documented, although no targets have been sampled.





8.0 REFERENCES

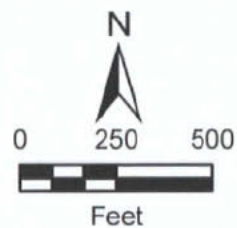
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- U.S. Census Bureau. 2010. Quickfacts. Accessed on December 18, 2015.
<http://quickfacts.census.gov/qfd/>

APPENDIX A
FIGURES



Legend

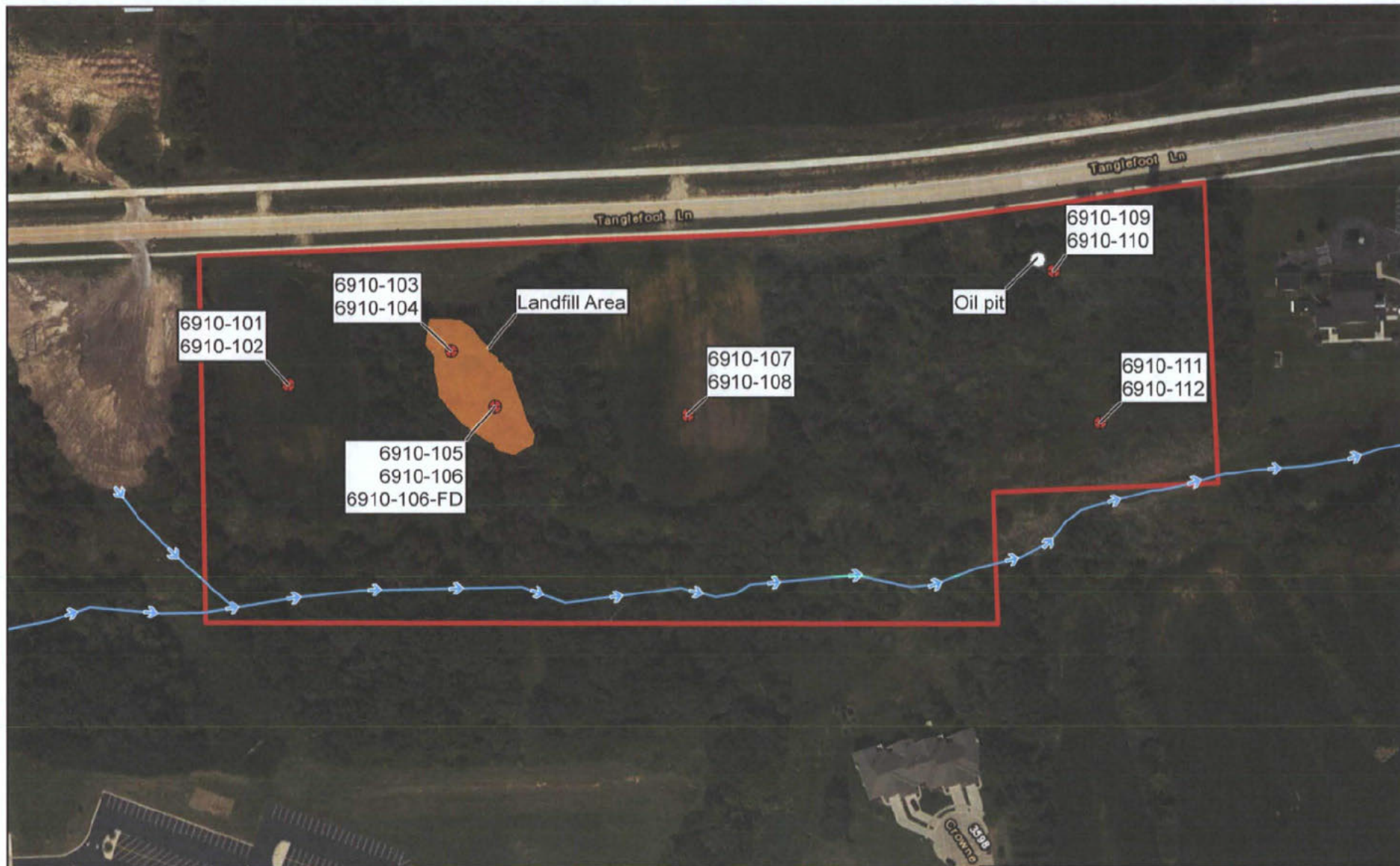
-  Creek
-  Approximate property boundary
-  Estimated landfill area
-  Oil pit location



Tanglefoot Lane Site
Bettendorf, Iowa

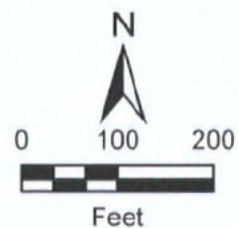
Figure 2
Site Layout Map





Legend

- DPT soil sample location
- Estimated landfill area
- Creek
- Oil pit location
- Approximate property boundary
- DPT Direct push technology



Tanglefoot Lane Site
Bettendorf, Iowa

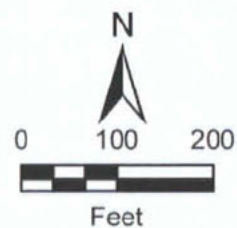
Figure 3
Soil Sample Location Map





Legend

- DPT groundwater sample location
- Creek
- Approximate property boundary
- Estimated landfill area
- Oil pit location
- DPT Direct push technology



Tanglefoot Lane Site
Bettendorf, Iowa

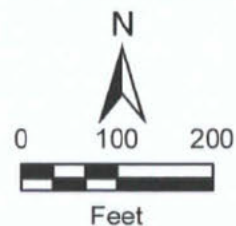
Figure 4
Groundwater Sample Location Map





Legend

- Ambient air sample location
- Soil-gas sample location
- Creek
- Approximate property boundary
- Estimated landfill area
- Oil pit location



Tanglefoot Lane Site
Bettendorf, Iowa

Figure 5
Soil-Gas Sample Location Map



X:\09025\0002\002\Project\mxd\figand.mxd

Source: ESRI, ArcGIS Online, World Imagery Basemap, 2011; Scott County Iowa, GIS Map Service, 2015

Date: 10/21/2015

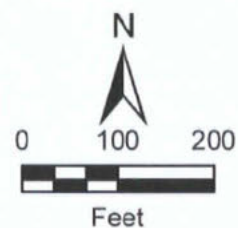
Drawn By: Clayton Hayes

Project No: 09025.16.107.001



Legend

- Sediment sample location
- Surface water and sediment sample location
- Creek
- Approximate property boundary
- Estimated landfill area
- Oil pit location



Tanglefoot Lane Site
Bettendorf, Iowa

Figure 6
Surface Water and Sediment
Sample Location Map



Source: ESRI, ArcGIS Online, World Imagery Basemap, 2011; Scott County Iowa, GIS Map Service, 2015

Date: 10/21/2015

Drawn By: Clayton Hayes

Project No: X9025.16.107.001



Legend

- | | | |
|-----------------------------------|-------------------------------|----------------|
| Monitoring well location | Approximate property boundary | 3 miles buffer |
| Other well location | 1/4 mile buffer | 4 miles buffer |
| Private well location | 1/2 mile buffer | |
| Public water supply well location | 1 mile buffer | |
| Public well location | 2 miles buffer | |

Tanglefoot Lane Site
Bettendorf, Iowa

Figure 7
4-Mile Radius Map



Source: ESRI, ArcGIS Online, World Imagery Basemap, 2011; Scott County Iowa, GIS Map Service, 2015

Date: 10/21/2015

Drawn By: Clayton Hayes

Project No: X9025-16-107-001

APPENDIX B
PHOTOGRAPHIC LOG

**Tanglefoot Lane Site
Bettendorf, Iowa**

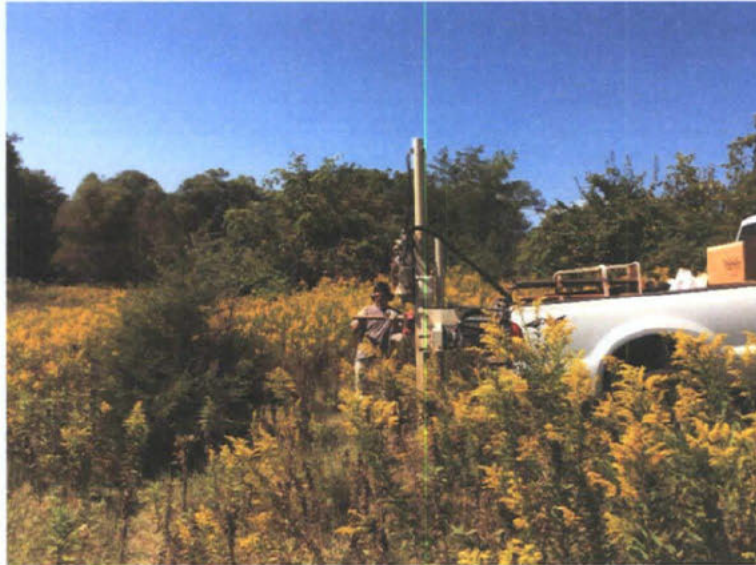


TETRA TECH PROJECT NO. X9025.16.0111.002 Direction: North	PHOTO DESCRIPTION	This photograph shows subsurface soil sampling activities at the Tanglefoot Lane site.	1
	CLIENT	U. S. Environmental Protection Agency Region 7	Date
	PHOTOGRAPHER	Adam Watkins	9/14/2015



TETRA TECH PROJECT NO. X9025.16.0111.002 Direction: North	PHOTO DESCRIPTION	This photograph shows subsurface soil sampling activities at the Tanglefoot Lane site.	2
	CLIENT	U. S. Environmental Protection Agency Region 7	Date
	PHOTOGRAPHER	Adam Watkins	9/14/2015

**Tanglefoot Lane Site
Bettendorf, Iowa**



TETRA TECH PROJECT NO. X9025.16.0111.002 Direction: West	PHOTO DESCRIPTION	This photograph shows subsurface soil sampling activities at the Tanglefoot Lane site.	3
	CLIENT	U. S. Environmental Protection Agency Region 7	Date
	PHOTOGRAPHER	Adam Watkins	9/15/2015



TETRA TECH PROJECT NO. X9025.16.0111.002 Direction: West	PHOTO DESCRIPTION	This photograph shows groundwater sampling activities at the Tanglefoot Lane site.	4
	CLIENT	U. S. Environmental Protection Agency Region 7	Date
	PHOTOGRAPHER	Adam Watkins	9/15/2015

**Tanglefoot Lane Site
Bettendorf, Iowa**



TETRA TECH PROJECT NO. X9025.16.0111.002 Direction: East	PHOTO DESCRIPTION	This photograph shows rinsate blank sampling activities at the Tanglefoot Lane site.	5
	CLIENT	U. S. Environmental Protection Agency Region 7	Date
	PHOTOGRAPHER	Adam Watkins	9/16/2015



TETRA TECH PROJECT NO. X9025.16.0111.002 Direction: West	PHOTO DESCRIPTION	This photograph shows surface water and sediment sampling activities at the Tanglefoot Lane site.	6
	CLIENT	U. S. Environmental Protection Agency Region 7	Date
	PHOTOGRAPHER	Adam Watkins	9/17/2015

**Tanglefoot Lane Site
Bettendorf, Iowa**



TETRA TECH PROJECT NO. X9025.16.0111.002 Direction: Northwest	PHOTO DESCRIPTION	This photograph shows debris scattered throughout a drainage ditch that leads to a creek running along the southern boundary of the Tanglefoot Lane site.	7
	CLIENT	U. S. Environmental Protection Agency Region 7	Date
	PHOTOGRAPHER	Adam Watkins	9/17/2015



TETRA TECH PROJECT NO. X9025.16.0111.002 Direction: East	PHOTO DESCRIPTION	This photograph shows the lack of water in the creek running along the southern boundary of the Tanglefoot Lane site.	8
	CLIENT	U. S. Environmental Protection Agency Region 7	Date
	PHOTOGRAPHER	Adam Watkins	9/17/2015

APPENDIX C
FIELD LOGBOOK

Outdoor writing products •
for Outdoor writing people



All components of
this product are recyclable

Rite in the Rain

A patented, environmentally
responsible, all-weather writing paper
that sheds water and enables you to
write anywhere, in any weather.

Using a pencil or all-weather pen,
Rite in the Rain ensures that your
notes survive the rigors of the field,
regardless of the conditions.

JL DARLING LLC
Tacoma, WA 98424-1017 USA
www.RiteintheRain.com

Item No. 311

NSN: 7530-01-433-5654
ISBN: 978-1-932149-29-6

Made in the USA
US Pat No. 6,863,940



KS1454



Rite in the Rain

ALL-WEATHER

LEVEL

NO 311

TANGLEFOOT LANE 9025 H0002.032

Project TANGLE FOOT LANE
X9025.14.0002.032
BETTENDORF, IA

Clear Vinyl Protective Slicovers (Item No. 30) are available for this style of notebook. Helps protect your notebook from wear & tear. Contact your dealer or J.L. Darling L.L.C.

[illegible]

3-12-2015

1000 ADAM WATKINS (TT) & KEITH BROWN (TT)
DEPART TETRA TECH (TT) KCMO OFFICE.

0600 TEAM ARRIVES IN BETTENDORF, IA @ THE
TANGLEFOOT LANE SITE. TEAM DRIVES THE
HOSPITAL ROUTE.

0645 TEAM ARRIVES @ HOTEL. END OF PROJECT
RELATED ACTIVITIES FOR THE DAY.

[Handwritten signature]
3-12-2015

3-13-2015

0830 TEAM MEETS IN HOTEL LOBBY TO DISCUSS
FIELD ACTIVITIES FOR THE DAY.

0845 TEAM DEPARTS HOTEL.

0900 TEAM ARRIVES @ TANGLEFOOT LANE
SITE & PREPS TO BEGIN SITE RECON
ACTIVITIES. TEAM WILL BE DOCUMENTING
ALL ACTIVITIES W/ ARCGIS COLLECTOR
APPLICATION THAT POSTS DIRECTLY TO
THE EPA GED PLATFORM.

0930 TEAM BEGINS DOCUMENTING ACTIVITIES

1110 TEAM FINISHES SITE RECON ACTIVITIES
& DEPARTS SITE/BETTENDORF, IA.

1730 TEAM ARRIVES @ TT KCMO OFFICE.
END OF PROJECT RELATED ACTIVITIES.

[Handwritten signature]
3-13-2015
Rite in the Rain

9-14-2015

0700 ADAM WATKINS (IT), KEITH BROWN (IT),
 & QUAN DO (SEAGULL) DEPART TETRA TECH
 KCMO OFFICE.

1530 ARRIVE @ TANGLE FOOT LANE SITE IN
 BETTENDORF, IA & PREP FOR SAMPLING
 ACTIVITIES.

1545 ARRIVE @ DPT-1 SAMPLING LOCATION.
 BORINGS LOGGED ON THE COLLECTOR
 APP.

1700 COLLECTED 6910-101

1715 COLLECTED 6910-102.

1730 COLLECTED 6910-201

1840 COLLECTED 6910-1.

1900 FINISHED w/ FIELDWORK. WATKINS &
 BROWN DELIVER ACCESS AGREEMENTS TO
 PROPERTY OWNERS. DO DEPARTS FOR HOTEL.

2030 CHECK IN TO HOTEL.

9-14-2015

9-15-2015

0800 WATKINS, BROWN, AND DO MEET @
 SITE & CONDUCT A MORNING
 SAFETY MEETING.

0815 TEAM RUNS TO STORE TO GET
 WATER, SUNSCREEN, & BUG
 SPRAY.

0845 BEGIN FIELDWORK ACTIVITIES
 @ DPT-2 SAMPLING LOCATION.
 PID NOT CHARGING & KEEPS SHUTTING
 OFF. TEAM WILL CONTINUE SOIL
 SAMPLING ACTIVITIES & BIAS
 SAMPLE INTERVALS BY STAINING &
 ODOOR ETC.

0945 COLLECTED 6910-103

1010 COLLECTED 6910-104.

1030 COLLECTED 6910-202

1131 COLLECTED 6910-202

1150 MOVE TO DPT-3 SAMPLING
 LOCATION.

1210 COLLECTED 6910-105

1222 COLLECTED 6910-106

1222 " 6910-106-FD

1308 COLLECTED 6910-203

1308 " 6910-203-FD

Rite in the Rain

9-15-2015

1340 COLLECTED 6910-3

1445 BREAK FOR LUNCH.

1528 ARRIVE @ DPT-4 SAMPLE LOCATION.

1610 COLLECTED 6910-107

1625 COLLECTED 6910-108.

1650 COLLECTED 6910-4.

1700 COLLECTED 6910-204

1816 DEPART SITE. WATKINS & BROWN
RETURN TO HOTEL TO PREP SAMPLES
TO BE DELIVERED TO EPA LAB.

[Signature]
9-15-15

9-16-2015

0800 ARRIVE ON SITE & CONDUCT

MORNING SAFETY TAILGATE MEETING.

0830 MOVE TO DPT-5 SAMPLE LOCATION

THE PID IS STILL NOT OPERATING

DUE TO CHARGING ISSUES.

1040 COLLECTED 6910-109

1100 COLLECTED 6910-110

1125 COLLECTED 6910-5

1130 NO GROUNDWATER ENCOUNTERED.

MOVE TO 6910⁷ DPT-6 SAMPLE
LOCATION.

1228 COLLECTED 6910-111

1240 COLLECTED 6910-112

1349 COLLECTED 6910-6

NO GROUNDWATER ENCOUNTERED.

1424 COLLECTED 6910-212.

1450 MOVE TO HOTEL TO LOAD UP

WATER SAMPLES COLLECTED ON
MONDAY & TUESDAY SO THAT
THEY CAN BE DELIVERED TO EPA
TOMORROW MORNING.

1530 QUAN DO DEPARTS DAVENPORT, IA.

WATKINS & BROWN TAKE LUNCH.

1600 ARRIVE @ LINDA LYON'S

Rite in the Rain.

TO PICK UP HER SIGNED ACCESS
AGREEMENT.

ARRIVE @ ANNE SCHROEDER'S HOUSE
TO PICK UP HER SIGNED ACCESS
AGREEMENT.

ARRIVE @ SURFACE WATER/
SEDIMENT - 4 SAMPLE LOCATION.

WATKINS SPEAKS W/ ADJACENT
PROPERTY OWNER.

COLLECTED 6910-205

COLLECTED 6910-113

DEPART SITE.

[Handwritten signature]
P.

9-17-2015

0830 WATKINS & BROWN ARRIVE ON SITE
@ SURFACE WATER/ SEDIMENT - 1
SAMPLE LOCATION.

0910 COLLECTED 6910-206

0924 COLLECTED 6910-114.

0924 COLLECTED 6910-114-FD

1100 MOVE TO SURFACE WATER/
SEDIMENT - 2 SAMPLE LOCATION.

1135 COLLECTED 6910-115. (MS/MSD)

NO SURFACE WATER ENCOUNTERED
ALONG CREEK LEADING FROM
PROPERTY TO THE WEST OF THE SITE.

1250 ARRIVE @ SURFACE WATER/
SEDIMENT - 3 SAMPLE LOCATION.

1350 COLLECTED 6910-207 (MS/MSD)

1420 COLLECTED 6910-116

1430 COLLECTED 6910-7

~~1440 COLLECTED 6910-8~~ M

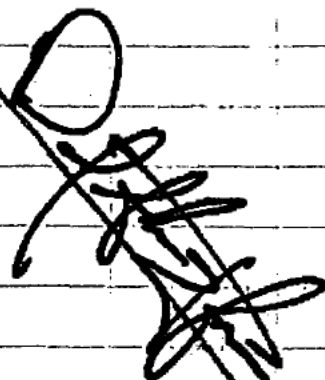
1450 COLLECTED 6910-9

5

BREAK FOR LUNCH.

DEPART BETTENDORF, IA.

COLLECT 6910-210-FB (TRIP BLANK)



9-12-15

APPENDIX D
FIELD SHEETS AND CHAIN-OF-CUSTODY RECORDS

ACTIVITY LEADER(Print) TODD DAVIS		NAME OF SURVEY OR ACTIVITY TANGLEFOOT LANE		DATE OF COLLECTION 14/15 9 2015 DAY MONTH YEAR			SHEET 1 of 1				
CONTENTS OF SHIPMENT											
SAMPLE NUMBER	TYPE OF CONTAINERS					SAMPLED MEDIA				RECEIVING LABORATORY REMARKS-OTHER INFORMATION (condition of samples upon receipt other sample numbers, etc.)	
	CUBITAINER	80 OZ. BOTTLE	BOTTLE	VOA SET (4 BOTTLE	VOA SET (2 VIALS EA)	water	soil	sediment	dust		other
	NUMBERS OF CONTAINERS PER SAMPLE NUMBER										
6910-201	2	3		1	1	X					
6910-202	2	3		1	1	X					
6910-203	2	3		1	1	X					
6910-203-FD	2	3		1	1	X					
6910-204	2	3		1	1	X					
6910-213-FB				1	1	X					
<div>ASR</div> <div>NOT COMPLETE</div> <div>9.6.2015</div>											
DESCRIPTION OF SHIPMENT						MODE OF SHIPMENT					
<div>PIECE(S) CONSISTING OF BOX(ES)</div> <div>4 ICE CHEST(S); OTHER</div>						<div>COMMERCIAL CARRIER</div> <div>COURIER</div> <div><input checked="" type="checkbox"/> SAMPLER CONVEYED</div> <div>(SHIPPING DOCUMENT NUMBER)</div>					
PERSONNEL CUSTODY RECORD											
RELINQUISHED BY (SAMPLER)		DATE		TIME		RECEIVED BY		REASON FOR CHANGE OF CUSTODY			
<div>SEAL</div> <div>UNSEAL</div>		9.17.15		9:32		<div>SEAL</div> <div>UNSEAL</div>		Rec'd at lab			
RELINQUISHED BY		DATE		TIME		RECEIVED BY		REASON FOR CHANGE OF CUSTODY			
<div>SEAL</div> <div>UNSEAL</div>						<div>SEAL</div> <div>UNSEAL</div>					
RELINQUISHED BY		DATE		TIME		RECEIVED BY		REASON FOR CHANGE OF CUSTODY			
<div>SEAL</div> <div>UNSEAL</div>						<div>SEAL</div> <div>UNSEAL</div>					

ASR Number: 6910 **Sample Number:** 201 **QC Code:** ____ **Matrix:** Water **Tag ID:** 6910-201-____

Project ID:	THDTLPA	Project Manager:	Todd Davis
Project Desc:	Tanglefoot Lane Site		
City:	Bettendorf	State:	Iowa
Program:	Superfund		
Site Name:	Multi-Site - General	Site ID:	07ZZ
		Site OU:	00

Location Desc: GW sample ~~DPT-1~~ DPT-1; 22'-26' BGS

External Sample Number:

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: 41,560113°

Sample Collection: Start: 9/14/15 17:38

Longitude: -90.447432

End: / / :

Container	Preservative	Holding Time	Analysis
1 - 1 Liter plastic bottle	5 mL of HNO ₃ /L to pH<2	28 Days	1 Mercury in Water
1 - 1 Liter plastic bottle	Field Filtered, HNO ₃ to pH<2	180 Days	1 Metals - Dissolved, in Water by ICP/MS
1 - 1 Liter plastic bottle	Field Filtered, HNO ₃ to pH<2, 4 Deg C	28 Days	1 Mercury - Dissolved, in Water
1 - 1 Liter plastic bottle	HNO ₃ to pH<2	180 Days	1 Metals in Water by ICP/MS
1 - 128oz amber glass	4 Deg C	7 Days	1 Semi-Volatile Organic Compounds in Water
1 - 128oz amber glass	4 Deg C	7 Days	1 Pesticides in Water by GC/EC
1 - 128oz amber glass	4 Deg C	7 Days	1 Herbicides in Water by GC/EC
1 - 128oz amber glass	4 Deg C	7 Days	1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits
2 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 Volatile TPH in Water by GC/MS

Sample Comments:

(N/A)

Sample Collected By: TT

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 6910 Sample Number: 202 QC Code: _____ Matrix: Water Tag ID: 6910-202-_____

Project ID: THDTLPA
Project Desc: Tanglefoot Lane Site
City: Bettendorf
Program: Superfund
Site Name: Multi-Site - General

Project Manager: Todd Davis

State: Iowa

Site ID: 07ZZ **Site OU:** 00

Location Desc: GW sample DPT-2; 16'-20' BGS

External Sample Number: _____

Expected Conc: _____ (or Circle One: Low Medium High) **Date** _____ **Time(24 hr)** _____

Latitude: 41.560224

Sample Collection: Start: 9/15/15 10:30

Longitude: -90.476593

End: ____/____/____ ____:____

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 Liter plastic bottle	5 mL of HNO ₃ /L to pH<2	28 Days	1 Mercury in Water
1 - 1 Liter plastic bottle	Field Filtered, HNO ₃ to pH<2	180 Days	1 Metals - Dissolved, in Water by ICP/MS
1 - 1 Liter plastic bottle	Field Filtered, HNO ₃ to pH<2, 4 Deg C	28 Days	1 Mercury - Dissolved, in Water
1 - 1 Liter plastic bottle	HNO ₃ to pH<2	180 Days	1 Metals in Water by ICP/MS
1 - 128oz amber glass	4 Deg C	7 Days	1 Semi-Volatile Organic Compounds in Water
1 - 128oz amber glass	4 Deg C	7 Days	1 Pesticides in Water by GC/EC
1 - 128oz amber glass	4 Deg C	7 Days	1 Herbicides in Water by GC/EC
1 - 128oz amber glass	4 Deg C	7 Days	1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits
2 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 Volatile TPH in Water by GC/MS

Sample Comments:

(N/A)

Sample Collected By: TT

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 6910 Sample Number: 203 QC Code: ____ Matrix: Water Tag ID: 6910-203-____

Project ID: THDTLPA
Project Desc: Tanglefoot Lane Site
City: Bettendorf
Program: Superfund
Site Name: Multi-Site - General

Project Manager: Todd Davis

State: Iowa

Site ID: 07ZZ Site OU: 00

Location Desc: GW sample DET-3 ; 16'-20' BGS

External Sample Number: _____

Expected Conc: _____ (or Circle One: Low Medium High) Date _____ Time(24 hr) _____

Latitude: 41.56005°

Sample Collection: Start: 9/15/15

13:08

Longitude: -90.446380

End: ____/____/____

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 Liter plastic bottle	5 mL of HNO ₃ /L to pH<2	28 Days	1 Mercury in Water
1 - 1 Liter plastic bottle	Field Filtered, HNO ₃ to pH<2	180 Days	1 Metals - Dissolved, in Water by ICP/MS
1 - 1 Liter plastic bottle	Field Filtered, HNO ₃ to pH<2, 4 Deg C	28 Days	1 Mercury - Dissolved, in Water
1 - 1 Liter plastic bottle	HNO ₃ to pH<2	180 Days	1 Metals in Water by ICP/MS
1 - 128oz amber glass	4 Deg C	7 Days	1 Semi-Volatile Organic Compounds in Water
1 - 128oz amber glass	4 Deg C	7 Days	1 Pesticides in Water by GC/EC
1 - 128oz amber glass	4 Deg C	7 Days	1 Herbicides in Water by GC/EC
1 - 128oz amber glass	4 Deg C	7 Days	1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits
2 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 Volatile TPH in Water by GC/MS

Sample Comments:

(N/A)

Sample Collected By: TT

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 6910 **Sample Number:** 203 **QC Code:** **Matrix:** Water **Tag ID:** 6910-203-**FD**

Project ID: THDTLPA **Project Manager:** Todd Davis
Project Desc: Tanglefoot Lane Site
City: Bettendorf **State:** Iowa
Program: Superfund
Site Name: Multi-Site - General **Site ID:** 07ZZ **Site OU:** 00

Location Desc: GW sample DET-3; 16'-20' BGS

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: 41.560005°

Sample Collection: Start: 9/15/15

13:08

Longitude: -90.446380

End: ____/____/____

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 Liter plastic bottle	5 mL of HNO ₃ /L to pH<2	28 Days	1 Mercury in Water
1 - 1 Liter plastic bottle	Field Filtered, HNO ₃ to pH<2	180 Days	1 Metals - Dissolved, in Water by ICP/MS
1 - 1 Liter plastic bottle	Field Filtered, HNO ₃ to pH<2, 4 Deg C	28 Days	1 Mercury - Dissolved, in Water
1 - 1 Liter plastic bottle	HNO ₃ to pH<2	180 Days	1 Metals in Water by ICP/MS
1 - 128oz amber glass	4 Deg C	7 Days	1 Semi-Volatile Organic Compounds in Water
1 - 128oz amber glass	4 Deg C	7 Days	1 Pesticides in Water by GC/EC
1 - 128oz amber glass	4 Deg C	7 Days	1 Herbicides in Water by GC/EC
1 - 128oz amber glass	4 Deg C	7 Days	1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits
2 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 Volatile TPH in Water by GC/MS

Sample Comments:

(N/A)

FIELD DUPLICATE SAMPLE OF 6910-203

Sample Collected By: TT

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 6910 **Sample Number:** 204 **QC Code:** **Matrix:** Water **Tag ID:** 6910-204-__

Project ID: THDTLPA **Project Manager:** Todd Davis
Project Desc: Tanglefoot Lane Site
City: Bettendorf **State:** Iowa
Program: Superfund
Site Name: Multi-Site - General **Site ID:** 07ZZ **Site OU:** 00

Location Desc: GW sample DPT-4 ; 14'-18" BG-5

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: 41.559957°

Sample Collection: Start: 9/15/15 12:00

Longitude: -90.423403°

End: / / : :

Laboratory Analyses:

Container	Preservative	Holding Time		Analysis
1 - 1 Liter plastic bottle	5 mL of HNO ₃ /L to pH<2	28	Days	1 Mercury In Water
1 - 1 Liter plastic bottle	Field Filtered, HNO ₃ to pH<2	180	Days	1 Metals - Dissolved, In Water by ICP/MS
1 - 1 Liter plastic bottle	Field Filtered, HNO ₃ to pH<2, 4 Deg C	28	Days	1 Mercury - Dissolved, In Water
1 - 1 Liter plastic bottle	HNO ₃ to pH<2	180	Days	1 Metals In Water by ICP/MS
1 - 128oz amber glass	4 Deg C	7	Days	1 Semi-Volatile Organic Compounds In Water
1 - 128oz amber glass	4 Deg C	7	Days	1 Pesticides In Water by GC/EC
1 - 128oz amber glass	4 Deg C	7	Days	1 Herbicides In Water by GC/EC
1 - 128oz amber glass	4 Deg C	7	Days	1 Semi-Volatile TPH (DRO & ORO) In Water by GC/FID
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14	Days	1 VOCs In Water by GC/MS for Low Detection Limits
2 - 40mL VOA vial	4 Deg C, HCL to pH<2	14	Days	1 Volatile TPH In Water by GC/MS

Sample Comments:

(N/A)

Sample Collected By: TT

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 6910 **Sample Number:** 213 **QC Code:** FB **Matrix:** Water **Tag ID:** 6910-213-FB

Project ID: THDTLPA	Project Manager: Todd Davis
Project Desc: Tanglefoot Lane Site	
City: Bettendorf	State: Iowa
Program: Superfund	
Site Name: Multi-Site - General	Site ID: 07ZZ Site OU: 00

Location Desc: TVOA & TPH GRO Trip Blank sample

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude: _____	Sample Collection: Start: <u>1</u> / <u>15</u> / <u>15</u>		<u>22</u> <u>16:50</u>
Longitude: _____	End: ____/____/____		____:____

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits
2 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 Volatile TPH in Water by GC/MS

Sample Comments:

(N/A)

Sample Collected By: TT

**CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII**

ACTIVITY LEADER(Print) <u>TODD DAVIS</u>	NAME OF SURVEY OR ACTIVITY <u>TANGLEFOOT LANE</u>	DATE OF COLLECTION <u>10/17</u> <u>4</u> <u>2015</u> DAY MONTH YEAR	SHEET <u>1</u> of <u>2</u>
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CONTENTS OF SHIPMENT

SAMPLE NUMBER	TYPE OF CONTAINERS (4 VOA)					SAMPLED MEDIA					RECEIVING LABORATORY REMARKS-OTHER INFORMATION (condition of samples upon receipt other sample numbers etc.)	
	CUBITAINER	BOZGLASS	SUNNA	VOA SET	VOA SET	water	soil	sediment	dust	AIR		
		BOTTLE	BOTTLE	BOTTLE	(2 VIALS EA)							
6910-1			1								X	
6910-2			1								X	
6910-3			1								X	
6910-4			1								X	
6910-5			1								X	
6910-6			1								X	
6910-7			1								X	
6910-9			1								X	
6910-101		4		1	1		X					
6910-102		4		1	1		X					
6910-103		4		1	1		X					
6910-104		4		1	1		X					
6910-105		4		1	1		X					
6910-106		4		1	1		X					
6910-106-FD		4		1	1		X					
6910-107		4		1	1		X					
6910-108		4		1	1		X					
6910-109		4		1	1		X					
6910-110		4		1	1		X					
6910-111		4		1	1		X					
6910-112		4		1	1		X					
6910-113		4		1	1		X					
6910-114		4		1	1		X					
6910-114-FD		4		1	1		X					

DESCRIPTION OF SHIPMENT _____ PIECE(S) CONSISTING OF _____ BOX(ES) <input checked="" type="checkbox"/> ICE CHEST(S): OTHER _____	MODE OF SHIPMENT _____ COMMERCIAL CARRIER _____ <input checked="" type="checkbox"/> COURIER <input checked="" type="checkbox"/> SAMPLER CONVEYED (SHIPPING DOCUMENT NUMBER) _____
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PERSONNEL CUSTODY RECORD

RELINQUISHED BY (SAMPLER) 	DATE <u>9/13/15</u>	TIME <u>1100</u>	RECEIVED BY 	REASON FOR CHANGE OF CUSTODY <u>Rec'd at lab</u>
<input type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED			<input type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED	
RELINQUISHED BY	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
<input type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED			<input type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED	
RELINQUISHED BY	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
<input type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED			<input type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED	

CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII

ACTIVITY LEADER(Print) TODD DAVIS		NAME OF SURVEY OR ACTIVITY TANGLE FOOT LANE		DATE OF COLLECTION 10/17/15			SHEET 2 of 2				
CONTENTS OF SHIPMENT											
SAMPLE NUMBER	TYPE OF CONTAINERS (4V6A)					SAMPLED MEDIA				RECEIVING LABORATORY REMARKS-OTHER INFORMATION (condition of samples upon receipt other sample numbers, etc.)	
	BOOE CONTAINER	BOOE BOTTLE	CUR1 BOTTLE	VOA SET BOTTLE	VOA SET (2 VIALS EA)	water	soil	sediment	dust		other
6910-115		12		3	3		X				
6910-116		4		1	1		X				
6910-205	3		2	1	1	X					
6910-206	3		2	1	1	X					
6910-207	9		6	3	3	X					
6910-210-FB				1	1	X					
6910-211-FB	3		2	1	1	X					
6910-212	3		2	1	1	X					
<div style="position: relative; height: 200px;"> <div style="position: absolute; top: 0; left: 0; right: 0; bottom: 0; transform: rotate(-45deg); transform-origin: center;"> <div style="position: absolute; top: 10%; left: 10%; font-size: 2em;">DRAFT</div> <div style="position: absolute; top: 30%; left: 20%;">ASR COMPLETE</div> <div style="position: absolute; top: 60%; left: 60%;">9-10-15</div> </div> </div>											
DESCRIPTION OF SHIPMENT						MODE OF SHIPMENT					
_____ PIECE(S) CONSISTING OF _____ BOX(ES) <input checked="" type="checkbox"/> ICE CHEST(S); OTHER _____						_____ COMMERCIAL CARRIER _____ <input checked="" type="checkbox"/> COURIER <input checked="" type="checkbox"/> SAMPLER CONVEYED _____ (SHIPPING DOCUMENT NUMBER)					

PERSONNEL CUSTODY RECORD				
RELINQUISHED BY (SAMPLER)	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
<input checked="" type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED	9/18/15	1100	<input type="checkbox"/> SEALED <input checked="" type="checkbox"/> UNSEALED	Rec'd at lab
RELINQUISHED BY	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
<input type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED			<input type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED	
RELINQUISHED BY	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
<input type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED			<input type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED	

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 6910 Sample Number: 1 QC Code: ____ Matrix: Air Tag ID: 6910-1-__

Project ID: THDTLPA Project Manager: Todd Davis
Project Desc: Tanglefoot Lane Site
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Multi-Site - General Site ID: 07ZZ Site OU: 00

Location Desc: DPT-1 ; 5.5' - 6.0' BGS

External Sample Number: _____

Expected Conc: _____ (or Circle One: Low Medium High) Date _____ Time(24 hr) _____

Latitude: 41.560092

Sample Collection: Start: 9/14/15

12:40

Longitude: -90.427405

End: 9/14/15

12:42

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air at Ambient Levels by GC/MS

Sample Comments:

(N/A)

PRESSURE: START: -28 PSI
STOP: -5 PSI

CAN #: 241740M
A7495

Sample Collected By: TT

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 6910 Sample Number: 2 QC Code: ____ Matrix: Air Tag ID: 6910-2-____

Project ID: THDTLPA Project Manager: Todd Davis
Project Desc: Tanglefoot Lane Site
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Multi-Site - General Site ID: 07ZZ Site OU: 00

Location Desc: DPT-2 ; 4' 3.5'-4.0' BGS

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)

Latitude: 41.560224' Sample Collection: Start: 9/15/15 11:31

Longitude: -90.476585' End: 9/15/15 11:33

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs In Air at Ambient Levels by GC/MS

Sample Comments:

(N/A)

PRESSURE: START: -30 psi

STOP: -5 psi

CAN # : 2986

Sample Collected By: TT

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 6910 Sample Number: 3 QC Code: Matrix: Air Tag ID: 6910-3-

Project ID: THDTLPA Project Manager: Todd Davis
Project Desc: Tanglefoot Lane Site
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Multi-Site - General Site ID: 07ZZ Site OU: 00

Location Desc: DPT-3; 3.5'-4.5' BGS

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude: <u>41.560005</u>		Sample Collection: Start: <u>9/15/15</u>	<u>13:40</u>
Longitude: <u>-90.446373</u>		End: <u>9/15/15</u>	<u>13:43</u>

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CAN #: L5111

PRESSURE: START: -30 psi

STOP: -5 psi

Sample Collected By: TT

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 6910 Sample Number: 4 QC Code: ____ Matrix: Air Tag ID: 6910-4-____

Project ID: THDTLPA Project Manager: Todd Davis
Project Desc: Tanglefoot Lane Site
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Multi-Site - General Site ID: 07ZZ Site OU: 00

Location Desc: DPT-4 ; 5.5' - 6.0' BGS

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)

Latitude: 41.559953

Sample Collection: Start: 9/15/13 16:50

Longitude: -90.445403

End: 9/15/13 16:53

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs In Air at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CAN #: L5201

PRESSURE: START: -29 psi
STOP: -5 psi

Sample Collected By: TT

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 6910 Sample Number: 5 QC Code: ____ Matrix: Air Tag ID: 6910-5-__

Project ID: THDTLPA Project Manager: Todd Davis
Project Desc: Tanglefoot Lane Site
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Multi-Site - General Site ID: 07ZZ Site OU: 00

Location Desc: DPT-5 ; 5.5'-6' BGS

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)
Latitude: 41.560462° Sample Collection: Start: 9/16/15 11:25
Longitude: -90.443504° End: 9/16/15 11:27

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CAN # : L5108

PRESSURE: START: -28 ps:

STOP: -5 ps:

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 6910 Sample Number: 6 QC Code: ___ Matrix: Air Tag ID: 6910-6-___

Project ID: THDTLPA
Project Desc: Tanglefoot Lane Site
City: Bettendorf
Program: Superfund
Site Name: Multi-Site - General

Project Manager: Todd Davis

State: Iowa

Site ID: 07ZZ Site OU: 00

Location Desc: DPT-6 ; 4.5'-5.0' BGS

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)

Latitude: 41.559067

Sample Collection: Start: 9/16/15 13:49

Longitude: -90.443303

End: 9/16/15 13:51

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CAN #: L5197

PRESSURE: START: -29 ps.

STOP: -5 ps.

Sample Collected By: TT

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 6910 Sample Number: 7 QC Code: ____ Matrix: Air Tag ID: 6910-7-____

Project ID: THDTLPA Project Manager: Todd Davis
Project Desc: Tanglefoot Lane Site
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Multi-Site - General Site ID: 07ZZ Site OU: 00

Location Desc: AMBIENT AIR - 1

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)

Latitude: 41.560769 Sample Collection: Start: 9/17/15 14:30
Longitude: -90.476415 End: 9/17/15 14:33

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs In Air at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CAN #: 5947

PRESSURE: START: -29 psi
STOP: -4 psi

Sample Collected By: TT

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 6910 Sample Number: 9 QC Code: ____ Matrix: Air Tag ID: 6910-9-__

Project ID: THDTLPA Project Manager: Todd Davis
Project Desc: Tanglefoot Lane Site
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Multi-Site - General Site ID: 07ZZ Site OU: 00

Location Desc: FIELD BLANK

External Sample Number: _____

Expected Conc: _____ (or Circle One: Low Medium High) Date: _____ Time(24 hr): _____

Latitude: _____ Sample Collection: Start: 9/17/15 14:50
Longitude: _____ End: ____/____/____ ____:____

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs In Air at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CAN #: 3018

Sample Collected By: TT

Kansas City, KS

ASR Number: 6910 **Sample Number:** 101 **QC Code:** ____ **Matrix:** Solid **Tag ID:** 6910-101-____

Project Manager: Todd Davis

State: Iowa

Site ID: 07ZZ Site OU: 00

Location Desc: DPT-1; 3'-5' BGS

External Sample Number:

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: 41.540113'

Sample Collection: Start: 9/14/15 47:00

Longitude: -90.477432'

End: 1/1

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
2 - 40mL VOA vial	4 Deg C	14 Days	1 Volatile TPH in Soil by GC/MS
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (In 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	28 Days	1 Mercury In Soil or Sediment
1 - 8 oz glass	4 Deg C	180 Days	1 Metals in Solids by ICP-AES
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
1 - 8 oz glass	4 Deg C	14 Days	1 Pesticides in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Herbicides In Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile TPH (DRO & ORO) In Soil by GC/FID
0 -	4 Deg C	0 Days	1 Percent Solid

Sample Comments:

(N/A)

Sample Collected By: TT

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 6910 **Sample Number:** 102 **QC Code:** ____ **Matrix:** Solid **Tag ID:** 6910-102-__

Project ID: THDTLPA
Project Desc: Tanglefoot Lane Site
City: Bettendorf
Program: Superfund
Site Name: Multi-Site - General

Project Manager: Todd Davis

State: Iowa

Site ID: 07ZZ **Site OU:** 00

Location Desc: DPT-1; 5'-7' BGS

External Sample Number: _____

Expected Conc: _____ (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: 41.566113°

Sample Collection: Start: 9/14/15

17:15

Longitude: -90.473432°

End: ____/____/____

____:____

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
2 - 40mL VOA vial	4 Deg C	14 Days	1 Volatile TPH in Soil by GC/MS
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	28 Days	1 Mercury in Soil or Sediment
1 - 8 oz glass	4 Deg C	180 Days	1 Metals in Solids by ICP-AES
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
1 - 8 oz glass	4 Deg C	14 Days	1 Pesticides in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Herbicides in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile TPH (DRO & ORO) in Soil by GC/FID
0 -	4 Deg C	0 Days	1 Percent Solid

4 - 8 oz. glass

Sample Comments:

(N/A)

Sample Collected By: TT

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 6910 **Sample Number:** 103 **QC Code:** ____ **Matrix:** Solid **Tag ID:** 6910-103-__

Project ID: THDTLPA
Project Desc: Tanglefoot Lane Site
City: Bettendorf
Program: Superfund
Site Name: Multi-Site - General

Project Manager: Todd Davis

State: Iowa

Site ID: 07ZZ **Site OU:** 00

Location Desc: DPT-2; 2'-4' BGS

External Sample Number: _____

Expected Conc: _____ (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: 41.560224

Sample Collection: Start: 9/15/15

09:45

Longitude: -90.476593

End: ____/____/____

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
2 - 40mL VOA vial	4 Deg C	14 Days	1 Volatile TPH in Soil by GC/MS
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's In Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	28 Days	1 Mercury In Soil or Sediment
1 - 8 oz glass	4 Deg C	180 Days	1 Metals In Solids by ICP-AES
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
1 - 8 oz glass	4 Deg C	14 Days	1 Pesticides in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Herbicides In Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile TPH (DRO & ORO) in Soil by GC/FID
0 -	4 Deg C	0 Days	1 Percent Solid

Sample Comments:

(N/A)

Sample Collected By: TT

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 6910 **Sample Number:** 104 **QC Code:** ____ **Matrix:** Solid **Tag ID:** 6910-104-____

Project ID: THDTLPA **Project Manager:** Todd Davis
Project Desc: Tanglefoot Lane Site
City: Bettendorf **State:** Iowa
Program: Superfund
Site Name: Multi-Site - General **Site ID:** 07ZZ **Site OU:** 00

Location Desc: DPT-2 ; 14'-16' BGS

External Sample Number: _____

Expected Conc: _____ (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: 41.560224°

Sample Collection: Start: 9/15/15 10:10

Longitude: -90.476593°

End: ____/____/____ ____:____

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
2 - 40mL VOA vial	4 Deg C	14 Days	1 Volatile TPH in Soil by GC/MS
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (In 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	28 Days	1 Mercury in Soil or Sediment
1 - 8 oz glass	4 Deg C	180 Days	1 Metals in Solids by ICP-AES
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
1 - 8 oz glass	4 Deg C	14 Days	1 Pesticides in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Herbicides in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile TPH (DRO & ORO) in Soil by GC/FID
0 -	4 Deg C	0 Days	1 Percent Solid

Sample Comments:

(N/A)

Sample Collected By: TT

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 6910 **Sample Number:** 105 **QC Code:** ____ **Matrix:** Solid **Tag ID:** 6910-105-__

Project ID: THDTLPA
Project Desc: Tanglefoot Lane Site
City: Bettendorf
Program: Superfund
Site Name: Multi-Site - General

Project Manager: Todd Davis

State: Iowa

Site ID: 07ZZ **Site OU:** 00

Location Desc: DPT-3 ; 14'-16' BGS

External Sample Number: _____

Expected Conc: _____ (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: 41.560005°

Sample Collection: Start: 9/15/15

12:10

Longitude: -90.476380°

End: ____/____/____

____:____

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
2 - 40mL VOA vial	4 Deg C	14 Days	1 Volatile TPH in Soil by GC/MS
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	28 Days	1 Mercury in Soil or Sediment
1 - 8 oz glass	4 Deg C	180 Days	1 Metals in Solids by ICP-AES
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
1 - 8 oz glass	4 Deg C	14 Days	1 Pesticides in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Herbicides in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile TPH (DRO & ORO) in Soil by GC/FID
0 -	4 Deg C	0 Days	1 Percent Solid

Sample Comments:

(N/A)

Sample Collected By: TT

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 6910 Sample Number: 106 QC Code: Matrix: Solid Tag ID: 6910-106-__

Project ID: THDTLPA Project Manager: Todd Davis
Project Desc: Tanglefoot Lane Site
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Multi-Site - General Site ID: 07ZZ Site OU: 00

Location Desc: D&T-3; 2'-4' BGS

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)

Latitude: 41.560005°

Sample Collection: Start: 9/15/15 12:22

Longitude: -90.476180°

End: / / :

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
2 - 40mL VOA vial	4 Deg C	14 Days	1 Volatile TPH In Soil by GC/MS
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's In Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	28 Days	1 Mercury In Soil or Sediment
1 - 8 oz glass	4 Deg C	180 Days	1 Metals in Solids by ICP-AES
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
1 - 8 oz glass	4 Deg C	14 Days	1 Pesticides in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Herbicides In Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile TPH (DRO & ORO) In Soil by GC/FID
0 -	4 Deg C	0 Days	1 Percent Solid

Sample Comments:

(N/A)

Sample Collected By: TT

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 6910 Sample Number: 106 QC Code: Matrix: Solid Tag ID: 6910-106-FO

Project ID: THDTLPA	Project Manager: Todd Davis
Project Desc: Tanglefoot Lane Site	
City: Bettendorf	State: Iowa
Program: Superfund	
Site Name: Multi-Site - General	Site ID: 07ZZ Site OU: 00

Location Desc: D7T-3; 2'-4' BGS

External Sample Number:

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: 41.560005

Sample Collection: Start: 9/15/15 12:22

Longitude: -70.476780

End: / / ;

Laboratory Analyses:

Container	Preservative	Holding Time		Analysis
2 ~ 40mL VOA vial	4 Deg C	14	Days	1 Volatile TPH In Soil by GC/MS
4 ~ 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14	Days	1 VOC's In Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 ~ 8 oz glass	4 Deg C	28	Days	1 Mercury In Soil or Sediment
1 ~ 8 oz glass	4 Deg C	180	Days	1 Metals In Solids by ICP-AES
1 ~ 8 oz glass	4 Deg C	14	Days	1 Semi-Volatile Organic Compounds in Soil
1 ~ 8 oz glass	4 Deg C	14	Days	1 Pesticides In Soil by GC/EC
1 ~ 8 oz glass	4 Deg C	14	Days	1 Herbicides In Soil by GC/EC
1 ~ 8 oz glass	4 Deg C	14	Days	1 Semi-Volatile TPH (DRO & ORO) In Soil by GC/FID
0 ~	4 Deg C	0	Days	1 Percent Solid

Sample Comments:

(N/A)

Sample Collected By: TT

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 6910 Sample Number: 107 QC Code: Matrix: Solid Tag ID: 6910-107-__

Project ID: THDTLPA Project Manager: Todd Davis
Project Desc: Tanglefoot Lane Site
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Multi-Site - General Site ID: 07ZZ Site OU: 00

Location Desc: DPT-4; 2'-4' BGS

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)

Latitude: 41.559953

Sample Collection: Start: 9/15/15 16:10

Longitude: -90.445395

End: / / :

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
2 - 40mL VOA vial	4 Deg C	14 Days	1 Volatile TPH in Soil by GC/MS
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	28 Days	1 Mercury in Soil or Sediment
1 - 8 oz glass	4 Deg C	180 Days	1 Metals in Solids by ICP-AES
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
1 - 8 oz glass	4 Deg C	14 Days	1 Pesticides in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Herbicides in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile TPH (DRO & ORO) in Soil by GC/FID
0 -	4 Deg C	0 Days	1 Percent Solid

Sample Comments:

(N/A)

Sample Collected By: TT

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 6910 Sample Number: 108 QC Code: ____ Matrix: Solid Tag ID: 6910-108-____

Project ID: THDTLPA Project Manager: Todd Davis
Project Desc: Tanglefoot Lane Site
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Multi-Site - General Site ID: 07ZZ Site OU: 00

Location Desc: DPT-4; 10'-12' BGS

External Sample Number: _____

Expected Conc: _____ (or Circle One: Low Medium High) Date: _____ Time(24 hr): _____
Latitude: 41.559953 Sample Collection: Start: 9/15/15 16:25
Longitude: -90.425395 End:

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
2 - 40mL VOA vial	4 Deg C	14 Days	1 Volatile TPH in Soil by GC/MS
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	28 Days	1 Mercury in Soil or Sediment
1 - 8 oz glass	4 Deg C	180 Days	1 Metals in Solids by ICP-AES
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
1 - 8 oz glass	4 Deg C	14 Days	1 Pesticides in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Herbicides in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile TPH (DRO & ORO) in Soil by GC/FID
0 -	4 Deg C	0 Days	1 Percent Solid

Sample Comments:

(N/A)

Sample Collected By: TT

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 6910 Sample Number: 109 QC Code: Matrix: Solid Tag ID: 6910-109-__

Project ID: THDTLPA Project Manager: Todd Davis
Project Desc: Tanglefoot Lane Site
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Multi-Site - General Site ID: 07ZZ Site OU: 00

Location Desc: DPT-5 ; 4'-6' BGS

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)

Latitude: 41.560462°

Sample Collection: Start: 9/16/15 10:40

Longitude: -90.473564°

End: / / :

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
2 - 40mL VOA vial	4 Deg C	14 Days	1 Volatile TPH in Soil by GC/MS
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	28 Days	1 Mercury in Soil or Sediment
1 - 8 oz glass	4 Deg C	180 Days	1 Metals in Solids by ICP-AES
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
1 - 8 oz glass	4 Deg C	14 Days	1 Pesticides in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Herbicides in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile TPH (DRO & ORO) in Soil by GC/FID
0 -	4 Deg C	0 Days	1 Percent Solid

Sample Comments:

(N/A)

Sample Collected By: TT

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 6910 Sample Number: 110 QC Code: ____ Matrix: Solid Tag ID: 6910-110-__

Project ID: THDTLPA Project Manager: Todd Davis
Project Desc: Tanglefoot Lane Site
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Multi-Site - General Site ID: 07ZZ Site OU: 00

Location Desc: DPT-5; 13'-15' BGS

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time (24 hr)

Latitude: 41.560462°

Sample Collection: Start: 9/16/15

11:00

Longitude: -90.473564

End: / /

 :

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
2 - 40mL VOA vial	4 Deg C	14 Days	1 Volatile TPH in Soil by GC/MS
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	28 Days	1 Mercury in Soil or Sediment
1 - 8 oz glass	4 Deg C	180 Days	1 Metals in Solids by ICP-AES
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
1 - 8 oz glass	4 Deg C	14 Days	1 Pesticides in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Herbicides in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile TPH (DRO & ORO) in Soil by GC/FID
0 -	4 Deg C	0 Days	1 Percent Solid

Sample Comments:

(N/A)

Sample Collected By: TT

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 6910 Sample Number: 111 QC Code: Matrix: Solid Tag ID: 6910-111-

Project ID: THDTLPA Project Manager: Todd Davis
Project Desc: Tanglefoot Lane Site
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Multi-Site - General Site ID: 07ZZ Site OU: 00

Location Desc: DPT-6 ; 2'-4' BGS

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)
Latitude: 41.559875 Sample Collection: Start: 9/16/15 12:28
Longitude: -90.473288 End: / / :

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
2 - 40mL VOA vial	4 Deg C	14 Days	1 Volatile TPH in Soil by GC/MS
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS ¹ Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	28 Days	1 Mercury in Soil or Sediment
1 - 8 oz glass	4 Deg C	180 Days	1 Metals in Solids by ICP-AES
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
1 - 8 oz glass	4 Deg C	14 Days	1 Pesticides in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Herbicides in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile TPH (DRO & ORO) in Soil by GC/FID
0 -	4 Deg C	0 Days	1 Percent Solid

Sample Comments:

(N/A)

Sample Collected By: TT

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 6910 Sample Number: 112 QC Code: Matrix: Solid Tag ID: 6910-112-__

Project ID: THDTLPA Project Manager: Todd Davis
Project Desc: Tanglefoot Lane Site
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Multi-Site - General Site ID: 07ZZ Site OU: 00

Location Desc: DPT-6 ; 12'-14' BGS

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)

Latitude: 41.559075

Sample Collection: Start: 9/16/15

12:40

Longitude: -90.473200

End: / / :

Laboratory Analyses:

	Container	Preservative	Holding Time	Analysis
2	40mL VOA vial	4 Deg C	14 Days	1 Volatile TPH in Soil by GC/MS
12	40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
4 - 8 oz. Glass	1 - 8 oz glass	4 Deg C	28 Days	1 Mercury in Soil or Sediment
	1 - 8 oz glass	4 Deg C	180 Days	1 Metals in Solids by ICP-AES
	1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
	1 - 8 oz glass	4 Deg C	14 Days	1 Pesticides in Soil by GC/EC
	1 - 8 oz glass	4 Deg C	14 Days	1 Herbicides in Soil by GC/EC
	1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile TPH (DRO & ORO) in Soil by GC/FID
	0 -	4 Deg C	0 Days	1 Percent Solid

Sample Comments:

(N/A)



Sample Collected By: TT

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 6910 Sample Number: 113 QC Code: Matrix: Solid Tag ID: 6910-113-__

Project ID: THDTLPA Project Manager: Todd Davis
Project Desc: Tanglefoot Lane Site
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Multi-Site - General Site ID: 07ZZ Site OU: 00

Location Desc: SEDIMENT SAMPLE LOCATION 4

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)

Latitude: 41.559677

Sample Collection: Start: 9/16/15

17:35

Longitude: -90.472783

End: / /

 :

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
2 - 40mL VOA vial	4 Deg C	14 Days	1 Volatile TPH in Soil by GC/MS
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	28 Days	1 Mercury in Soil or Sediment
1 - 8 oz glass	4 Deg C	180 Days	1 Metals in Solids by ICP-AES
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
1 - 8 oz glass	4 Deg C	14 Days	1 Pesticides in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Herbicides in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile TPH (DRO & ORO) in Soil by GC/FID
0 -	4 Deg C	0 Days	1 Percent Solid

Sample Comments:

(N/A)

Sample Collected By: TT

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 6910 Sample Number: 114 QC Code: Matrix: Solid Tag ID: 6910-114-__

Project ID: THDTLPA Project Manager: Todd Davis
Project Desc: Tanglefoot Lane Site
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Multi-Site - General Site ID: 07ZZ Site OU: 00

Location Desc: SEDIMENT SAMPLE LOCATION 1

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)

Latitude: 41.554334

Sample Collection: Start: 9/14/15 9:24

Longitude: -90.477716

End: / / :

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
2 - 40mL VOA vial	4 Deg C	14 Days	1 Volatile TPH in Soil by GC/MS
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	28 Days	1 Mercury in Soil or Sediment
1 - 8 oz glass	4 Deg C	180 Days	1 Metals in Solids by ICP-AES
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
1 - 8 oz glass	4 Deg C	14 Days	1 Pesticides in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Herbicides in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile TPH (DRO & ORO) in Soil by GC/FID
0 -	4 Deg C	0 Days	1 Percent Solid

Sample Comments:

(N/A)

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 6910 Sample Number: 114 QC Code: Matrix: Solid Tag ID: 6910-114-FD

Project ID: THDTLPA Project Manager: Todd Davis
Project Desc: Tanglefoot Lane Site
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Multi-Site - General Site ID: 07ZZ Site OU: 00

Location Desc: SEDIMENT SAMPLE LOCATION 1

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)

Latitude: 41.554334

Sample Collection: Start: 9/14/15

9:24

Longitude: -90.477716

End: / /

 :

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
2 - 40mL VOA vial	4 Deg C	14 Days	1 Volatile TPH in Soil by GC/MS
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	28 Days	1 Mercury in Soil or Sediment
1 - 8 oz glass	4 Deg C	180 Days	1 Metals in Solids by ICP-AES
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
1 - 8 oz glass	4 Deg C	14 Days	1 Pesticides in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Herbicides in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile TPH (DRO & ORO) in Soil by GC/FID
0 -	4 Deg C	0 Days	1 Percent Solid

Sample Comments:

(N/A)

Sample Collected By: TT

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 6910 **Sample Number:** 115 **QC Code:** ____ **Matrix:** Solid **Tag ID:** 6910-115-____

Project ID:	THDTLPA	Project Manager:	Todd Davis
Project Desc:	Tanglefoot Lane Site		
City:	Bettendorf	State:	Iowa
Program:	Superfund		
Site Name:	Multi-Site - General	Site ID:	07ZZ
		Site OU:	00

Location Desc: SEDIMENT SAMPLE LOCATION 2.

External Sample Number:

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: 41.554516 Sample Collection: Start: 9/12/15 11:35
Longitude: -90.444245 End:

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
6 - 40mL VOA vial	4 Deg C	14 Days	1 Volatile TPH In Soil by GC/MS
12 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (In 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	28 Days	1 Mercury in Soil or Sediment
1 - 8 oz glass	4 Deg C	180 Days	1 Metals in Solids by ICP-AES
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
1 - 8 oz glass	4 Deg C	14 Days	1 Pesticides in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Herbicides in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile TPH (DRO & ORO) in Soil by GC/FID
0 -	4 Deg C	0 Days	1 Percent Solid

Sample Comments:

(N/A)

MS(MSD COLLECTED
(TRIPLE VOLUME)

Sample Collected By: TT

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 6910 **Sample Number:** 116 **QC Code:** ____ **Matrix:** Solid **Tag ID:** 6910-116-____

Project ID: THDTLPA **Project Manager:** Todd Davis
Project Desc: Tanglefoot Lane Site
City: Bettendorf **State:** Iowa
Program: Superfund
Site Name: Multi-Site - General **Site ID:** 07ZZ **Site OU:** 00

Location Desc: SEDIMENT SAMPLE LOCATION 3

External Sample Number: _____

Expected Conc: _____ (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: 41.559252

Sample Collection: Start: 9/19/15

14:20

Longitude: -90.496129

End: ____/____/____

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
2 - 40mL VOA vial	4 Deg C	14 Days	1 Volatile TPH in Soil by GC/MS
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, H2O + sodium bisulfate (in 2 vials)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	28 Days	1 Mercury In Soil or Sediment
1 - 8 oz glass	4 Deg C	180 Days	1 Metals in Solids by ICP-AES
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
1 - 8 oz glass	4 Deg C	14 Days	1 Pesticides in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Herbicides in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile TPH (DRO & ORO) in Soil by GC/FID
0 -	4 Deg C	0 Days	1 Percent Solid

Sample Comments:

(N/A)

Sample Collected By: TT

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 6910 Sample Number: 205 QC Code: Matrix: Water Tag ID: 6910-205-__

Project ID: THDTLPA
Project Desc: Tanglefoot Lane Site
City: Bettendorf
Program: Superfund
Site Name: Multi-Site - General

Project Manager: Todd Davis

State: Iowa

Site ID: 07ZZ Site OU: 00

Location Desc: ~~GW sample~~ **SURFACE WATER LOCATION 4**

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)

Latitude: 41.554677

Sample Collection: Start: 9/16/15

17:30

Longitude: -90.472763

End: / /

 :

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 Liter plastic bottle	5 mL of HNO3/L to pH<2	28 Days	1 Mercury in Water
1 - 1 Liter plastic bottle	Field Filtered, HNO3 to pH<2	180 Days	1 Metals - Dissolved, in Water by ICP/MS
1 - 1 Liter plastic bottle	Field Filtered, HNO3 to pH<2, 4 Deg C	28 Days	1 Mercury - Dissolved, in Water
1 - 1 Liter plastic bottle	HNO3 to pH<2	180 Days	1 Metals in Water by ICP/MS
1 - 128oz amber glass	4 Deg C	7 Days	1 Semi-Volatile Organic Compounds in Water
1 - 128oz amber glass	4 Deg C	7 Days	1 Pesticides in Water by GC/EC
1 - 128oz amber glass	4 Deg C	7 Days	1 Herbicides in Water by GC/EC
1 - 128oz amber glass	4 Deg C	7 Days	1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits
2 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 Volatile TPH in Water by GC/MS

Sample Comments:

(N/A)

Sample Collected By: TT

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 6910 **Sample Number:** 206 **QC Code:** ____ **Matrix:** Water **Tag ID:** 6910-206-__

Project ID: THDTLPA
Project Desc: Tanglefoot Lane Site
City: Bettendorf
Program: Superfund
Site Name: Multi-Site - General

Project Manager: Todd Davis

State: Iowa

Site ID: 07ZZ **Site OU:** 00

Location Desc: ~~GW sample~~ **SURFACE WATER SAMPLE LOCATION 1**

External Sample Number: _____

Expected Conc: _____ (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: 41.559331°

Sample Collection: Start: 9/14/15 9:10

Longitude: -90.425689°

End: ____/____/____ ____:____

Laboratory Analyses:

	Container	Preservative	Holding Time		Analysis
2-1L each	1 - 1 Liter plastic bottle	5 mL of HNO ₃ /L to pH<2	28	Days	1 Mercury in Water
	1 - 1 Liter plastic bottle	Field Filtered, HNO ₃ to pH<2	180	Days	1 Metals - Dissolved, in Water by ICP/MS
	1 - 1 Liter plastic bottle	Field Filtered, HNO ₃ to pH<2, 4 Deg C	28	Days	1 Mercury - Dissolved, in Water
	1 - 1 Liter plastic bottle	HNO ₃ to pH<2	180	Days	1 Metals in Water by ICP/MS
10 8-00.02 6.000	1 - 128oz amber glass	4 Deg C	7	Days	1 Semi-Volatile Organic Compounds in Water
	1 - 128oz amber glass	4 Deg C	7	Days	1 Pesticides in Water by GC/EC
	1 - 128oz amber glass	4 Deg C	7	Days	1 Herbicides in Water by GC/EC
	1 - 128oz amber glass	4 Deg C	7	Days	1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID
	4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14	Days	1 VOCs in Water by GC/MS for Low Detection Limits
	2 - 40mL VOA vial	4 Deg C, HCL to pH<2	14	Days	1 Volatile TPH in Water by GC/MS

Sample Comments:

(N/A)

Sample Collected By: TT

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 6910 Sample Number: 207 QC Code: Matrix: Water Tag ID: 6910-207-__

Project ID: THDTLPA Project Manager: Todd Davis
Project Desc: Tanglefoot Lane Site
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Multi-Site - General Site ID: 07ZZ Site OU: 00

Location Desc: ~~Surface sample~~ SURFACE WATER SAMPLE LOCATION 23

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)

Latitude: 41.559292°

Sample Collection: Start: 9/17/15 13:50

Longitude: -90.476129°

End: / / :

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 Liter plastic bottle	5 mL of HNO ₃ /L to pH<2	28 Days	1 Mercury in Water
1 - 1 Liter plastic bottle	Field Filtered, HNO ₃ to pH<2	180 Days	1 Metals - Dissolved, in Water by ICP/MS
1 - 1 Liter plastic bottle	Field Filtered, HNO ₃ to pH<2, 4 Deg C	28 Days	1 Mercury - Dissolved, in Water
1 - 1 Liter plastic bottle	HNO ₃ to pH<2	180 Days	1 Metals in Water by ICP/MS
1 - 128oz amber glass	4 Deg C	7 Days	1 Semi-Volatile Organic Compounds in Water
1 - 128oz amber glass	4 Deg C	7 Days	1 Pesticides in Water by GC/EC
1 - 128oz amber glass	4 Deg C	7 Days	1 Herbicides in Water by GC/EC
1 - 128oz amber glass	4 Deg C	7 Days	1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits
2 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 Volatile TPH in Water by GC/MS

Sample Comments:

(N/A)

MS/MSD COLLECTED
TRIPLE VOLUME

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 6910 Sample Number: ~~210~~ ²¹⁰ QC Code: FB Matrix: Water Tag ID: ~~6910-210-FB~~ ^{6910-210-FB}

Project ID: THDTLPA Project Manager: Todd Davis
Project Desc: Tanglefoot Lane Site
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Multi-Site - General Site ID: 07ZZ Site OU: 00

Location Desc: TVOA & TPH GRO Trip Blank sample

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High)

Latitude: _____

Longitude: _____

Sample Collection: Start:

End:

Date
9/17/15
7/18/15

Time(24 hr)

20:10

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs In Water by GC/MS for Low Detection Limits
2 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 Volatile TPH In Water by GC/MS

Sample Comments:

(N/A)

Sample Collected By: TT

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 6910 **Sample Number:** 211 **QC Code:** FB **Matrix:** Water **Tag ID:** 6910-211-FB

Project ID: THDTLPA **Project Manager:** Todd Davis
Project Desc: Tanglefoot Lane Site
City: Bettendorf **State:** Iowa
Program: Superfund
Site Name: Multi-Site - General **Site ID:** 07ZZ **Site OU:** 00

Location Desc: Field Blank sample

External Sample Number: _____

Expected Conc: _____ (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: _____

Sample Collection: Start: 9/14/15 15:10

Longitude: _____

End: ____/____/____ ____:____

Laboratory Analyses:

Container	Preservative	Holding Time		Analysis
1 - 1 Liter plastic bottle	5 mL of HNO ₃ /L to pH<2	28	Days	1 Mercury in Water
1 - 1 Liter plastic bottle	Field Filtered, HNO ₃ to pH<2	180	Days	1 Metals - Dissolved, In Water by ICP/MS
1 - 1 Liter plastic bottle	Field Filtered, HNO ₃ to pH<2, 4 Deg C	28	Days	1 Mercury - Dissolved, in Water
1 - 1 Liter plastic bottle	HNO ₃ to pH<2	180	Days	1 Metals in Water by ICP/MS
1 - 128oz amber glass	4 Deg C	7	Days	1 Semi-Volatile Organic Compounds in Water
1 - 128oz amber glass	4 Deg C	7	Days	1 Pesticides in Water by GC/EC
1 - 128oz amber glass	4 Deg C	7	Days	1 Herbicides in Water by GC/EC
1 - 128oz amber glass	4 Deg C	7	Days	1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14	Days	1 VOCs in Water by GC/MS for Low Detection Limits
2 - 40mL VOA vial	4 Deg C, HCL to pH<2	14	Days	1 Volatile TPH in Water by GC/MS

Sample Comments:

(N/A)

Sample Collected By: TT

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 6910 Sample Number: 212 QC Code: Matrix: Water Tag ID: 6910-212-__

Project ID: THDTLPA Project Manager: Todd Davis
Project Desc: Tanglefoot Lane Site
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Multi-Site - General Site ID: 07ZZ Site OU: 00

Location Desc: Rinsate sample

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)
Latitude: Sample Collection: Start: 9/16/15 14:24
Longitude: End: / / : /

Laboratory Analyses:

3-800z 6ms 12-1 LCUB1

Container	Preservative	Holding Time	Analysis
1 - 1 Liter plastic bottle	5 mL of HNO ₃ /L to pH<2	28 Days	1 Mercury in Water
1 - 1 Liter plastic bottle	Field Filtered, HNO ₃ to pH<2	180 Days	1 Metals - Dissolved, in Water by ICP/MS
1 - 1 Liter plastic bottle	Field Filtered, HNO ₃ to pH<2, 4 Deg C	28 Days	1 Mercury - Dissolved, in Water
1 - 1 Liter plastic bottle	HNO ₃ to pH<2	180 Days	1 Metals in Water by ICP/MS
1 - 128oz amber glass	4 Deg C	7 Days	1 Semi-Volatile Organic Compounds in Water
1 - 128oz amber glass	4 Deg C	7 Days	1 Pesticides in Water by GC/EC
1 - 128oz amber glass	4 Deg C	7 Days	1 Herbicides in Water by GC/EC
1 - 128oz amber glass	4 Deg C	7 Days	1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits
2 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 Volatile TPH in Water by GC/MS

Sample Comments:

(N/A)

Sample Collected By: TT

APPENDIX E
ANALYTICAL DATA PACKAGE

**United States Environmental Protection Agency
Region 7
300 Minnesota Avenue
Kansas City, KS 66101**

Date: 10/26/2015

Subject: Transmittal of Sample Analysis Results for ASR #: 6910

Project ID: THDTLPA

Project Description: Tanglefoot Lane Site

From: Margaret E.W. St. Germain, Chief

Laboratory Technology & Analysis Branch, Environmental Sciences & Technology Division

To: Todd Davis

SUPR/ERNB

Enclosed are the analytical data for the above-referenced Analytical Services Request (ASR) and Project. The Regional Laboratory has reviewed and verified the results in accordance with procedures described in our Quality Manual (QM). In addition to all of the analytical results, this transmittal contains pertinent information that may have influenced the reported results and documents any deviations from the established requirements of the QM.

Please contact us within 14 days of receipt of this package if you determine there is a need for any changes. Please complete the enclosed Customer Satisfaction Survey and Data Disposition/Sample Release memo for this ASR as soon as possible. The process of disposing of the samples for this ASR will be initiated 30 days from the date of this transmittal unless an alternate release date is specified on the Data Disposition/Sample Release memo.

If you have any questions or concerns relating to this data package, contact our customer service line at 913-551-5295.

Enclosures

cc: Analytical Data File.

Project Manager: Todd Davis**Org:** SUPR/ERNB**Phone:** 913-551-7749**Project ID:** THDTLPA**Project Desc:** Tanglefoot Lane Site**Location:** Bettendorf**State:** Iowa**Program:** Superfund**Site Name:** Multi-Site - General**Site ID:** 07ZZ **Site OU:** 00**Purpose:** Site Preliminary Assessment**GPRA PRC:** 303DD2

Preliminary Assessment sampling.

Explanation of Codes, Units and Qualifiers used on this report**Sample QC Codes:** QC Codes identify the type of sample for quality control purpose.**Units:** Specific units in which results are reported.

___ = Field Sample

FB = Field Blank

FD = Field Duplicate

ug/kg = Micrograms per Kilogram

ug/L = Micrograms per Liter

mg/kg = Milligrams per Kilogram

mg/L = Milligrams per Liter

ug/m3 = Micrograms per Cubic Meter

% = Percent

Data Qualifiers: Specific codes used in conjunction with data values to provide additional information on the quality of reported results, or used to explain the absence of a specific value.

(Blank)= Values have been reviewed and found acceptable for use.

U = The analyte was not detected at or above the reporting limit.

J = The identification of the analyte is acceptable; the reported value is an estimate.

UJ = The analyte was not detected at or above the reporting limit. The reporting limit is an estimate.

ASR Number: 6910

Sample Information Summary

10/26/2015

Project ID: THDTLPA

Project Desc: Tanglefoot Lane Site

Sample No	QC Code	Matrix	Location Description	External Sample No	Start Date	Start Time	End Date	End Time	Receipt Date
1 - ___		Air	DPT-1 (5.5-6.0' bgs)		09/14/2015	18:40	09/14/2015	18:42	09/18/2015
2 - ___		Air	DPT-2 (3.5-4.0' bgs)		09/15/2015	11:31	09/15/2015	11:33	09/18/2015
3 - ___		Air	DPT-3 (3.5-4.0' bgs)		09/15/2015	13:40	09/15/2015	13:43	09/18/2015
4 - ___		Air	DPT-4 (5.5-6.0' bgs)		09/15/2015	16:50	09/15/2015	16:53	09/18/2015
5 - ___		Air	DPT-5 (5.5-6' bgs)		09/16/2015	11:25	09/16/2015	11:27	09/18/2015
6 - ___		Air	DPT-6 (4.5-5.0' bgs)		09/16/2015	13:49	09/16/2015	13:51	09/18/2015
7 - ___		Air	Ambient Air-1		09/17/2015	14:30	09/17/2015	14:33	09/18/2015
9 - FB		Air	Field Blank		09/17/2015	14:50			09/18/2015
101 - ___		Solid	DPT-1 (3-5' bgs)		09/14/2015	17:00			09/18/2015
102 - ___		Solid	DPT-1 (5-7' bgs)		09/14/2015	17:15			09/18/2015
103 - ___		Solid	DPT-2 (2-4' bgs)		09/15/2015	09:45			09/18/2015
104 - ___		Solid	DPT-2 (14-16' bgs)		09/15/2015	10:10			09/18/2015
105 - ___		Solid	DPT-3 (14-16' bgs)		09/15/2015	12:10			09/18/2015
106 - ___		Solid	DPT-3 (2-4' bgs)		09/15/2015	12:22			09/18/2015
106 - FD		Solid	DPT-3 (2-4' bgs)		09/15/2015	12:22			09/18/2015
107 - ___		Solid	DPT-4 (2-4' bgs)		09/15/2015	16:10			09/18/2015
108 - ___		Solid	DPT-4 (10-12' bgs)		09/15/2015	16:25			09/18/2015
109 - ___		Solid	DPT-5 (4-6' bgs)		09/16/2015	10:40			09/18/2015
110 - ___		Solid	DPT-5 (13-15' bgs)		09/16/2015	11:00			09/18/2015
111 - ___		Solid	DPT-6 (2-4' bgs)		09/16/2015	12:28			09/18/2015
112 - ___		Solid	DPT-6 (12-14' bgs)		09/16/2015	12:40			09/18/2015
113 - ___		Solid	Sediment sample location 4		09/16/2015	17:35			09/18/2015
114 - ___		Solid	Sediment sample location 1		09/17/2015	09:24			09/18/2015
114 - FD		Solid	Sediment sample location 1		09/17/2015	09:24			09/18/2015
115 - ___		Solid	Sediment sample location 2		09/17/2015	11:35			09/18/2015
116 - ___		Solid	Sediment sample location 3		09/17/2015	14:20			09/18/2015
201 - ___		Water	DPT-1 (22-26' bgs)		09/14/2015	17:30			09/17/2015
202 - ___		Water	DPT-2 (16-20' bgs)		09/15/2015	10:30			09/17/2015
203 - ___		Water	DPT-3 (16-20' bgs)		09/15/2015	13:08			09/17/2015
203 - FD		Water	DPT-3 (16-20' bgs)		09/15/2015	13:08			09/17/2015
204 - ___		Water	DPT-4 (14-18' bgs)		09/15/2015	17:00			09/17/2015
205 - ___		Water	Surface water location 4		09/16/2015	17:30			09/18/2015
206 - ___		Water	Surface water sample location 1		09/17/2015	09:10			09/18/2015
207 - ___		Water	Surface water sample location 3		09/17/2015	13:50			09/18/2015
210 - FB		Water	LDL VOA & TPH VOA (GRO) Trip Blank sample		09/17/2015	20:10			09/18/2015
211 - FB		Water	Field Blank sample		09/17/2015	15:10			09/18/2015
212 - ___		Water	Rinsate sample		09/16/2015	14:24			09/18/2015
213 - FB		Water	LDL VOA & TPH VOA (GRO) Trip Blank sample		09/15/2015	22:50			09/17/2015

Analysis Comments About Results For This Analysis

1 VOCs in Air at Ambient Levels by GC/MS**Lab:** RASP Contract Lab (Out-Source)**Method:** Similar to EPA Region 7 RLAB Method 3230.4G (see comments)**Samples:** 1-__ 2-__ 3-__ 4-__ 5-__ 6-__ 7-__
 9-FB**Comments:**

The pressure of the sample canisters was checked prior to analysis. Samples 6910-7 was received at 6.0 psia. The sample required pressurization prior to analysis which resulted in an initial dilution of the sample. The field blank 6910-9FB was received under vacuum and required pressurization to facilitate analysis. Samples 6910-1 thru 6910-7 required dilutions due to target compound concentrations.

The MSD recovery (227%) for naphthalene in sample 6910-1 exceeded the upper control limit of 221%. Naphthalene was J-coded in sample 6910-1. Although the analyte in question has been positively identified in the sample, the quantitation is an estimate (J-coded) due to high recovery of this analyte in the laboratory matrix spike duplicate. The actual concentration for this analyte may be lower than the reported value.

1 Herbicides in Soil by GC/EC**Lab:** Region 7 EPA Laboratory - Kansas City, Ks.**Method:** EPA Region 7 RLAB Method 3240.2J**Basis:** Dry**Samples:** 101-__ 102-__ 103-__ 104-__ 105-__ 106-__ 106-FD
 107-__ 108-__ 109-__ 110-__ 111-__ 112-__ 113-__
 114-__ 114-FD 115-__ 116-__**Comments:**

Pentachlorophenol was J-coded in samples 103 and 106. Although the analyte in question has been positively identified in the sample, the quantitation is an estimate (J-coded) due to the reported value exceeding the calibrated range of the instrument.

Interferences can add to the results on one column that causes a poor quantitation match between the two columns or can 'mask' the analyte peak. In those cases, the sample results from the column without the interference is U-coded. The following results have been U-coded for this reason: 2,4-D for samples 105, 106, and 106-FD.

1 Mercury in Soil or Sediment**Lab:** Contract Lab Program (Out-Source)**Method:** CLP Statement of Work**Basis:** Dry**Samples:** 101-__ 102-__ 103-__ 104-__ 105-__ 106-__ 106-FD

Analysis Comments About Results For This Analysis

Samples: 107-__ 108-__ 109-__ 110-__ 111-__ 112-__ 113-__
 114-__ 114-FD 115-__ 116-__

Comments:

(N/A)

1 Metals in Solids by ICP-AES**Lab:** Contract Lab Program (Out-Source)**Method:** CLP Statement of Work**Basis:** Dry

Samples: 101-__ 102-__ 103-__ 104-__ 105-__ 106-__ 106-FD
 107-__ 108-__ 109-__ 110-__ 111-__ 112-__ 113-__
 114-__ 114-FD 115-__ 116-__

Comments:

Slight arsenic, calcium, lead, and selenium contamination were found in the preparation and/or calibration blanks. Only samples containing these analytes at a level greater than ten times the contamination level of the blank are reported without being qualified. All samples that contained these analytes but at a level less than ten times the contamination in the blank have the results U-coded indicating that the reporting limits have been raised to the levels found in the samples. Samples affected were: arsenic in -104, -108, and -110, calcium in -107, -108, and -111, lead in -110, and selenium in -106FD.

Slight negative thallium contamination was found in the calibration blanks. Only samples containing this analyte at a level greater than five times the contamination level of the blank are reported without being qualified. All samples that contained this analyte but at a level less than five times the contamination in the blank have the result J-coded. Samples affected were: thallium in -110 and -114.

Cobalt in samples -104, -110, and -115, lead in sample -110, silver in samples -101 through -116, and thallium in samples -101 through -109, -111 through -113, -114FD, -115, and -116 were UJ-coded and lead in samples -107 and -108 and thallium in samples -110 and -114 were J-coded. Positive results less than ten times the levels found were J-coded and non-detects were UJ-coded due to negative recoveries of these analytes in the interference check samples (ICS) which were not present in the ICS solution but whose absolute values were greater than the method detection limits (MDL), therefore, a possibility of false negatives exists. The actual reporting limits may be higher than the reported values.

Antimony was UJ-coded in sample -115. This analyte was not found in the sample at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to low recovery of this analyte (antimony: 39% vs 75-125%) in the laboratory matrix spike. The actual reporting limit for this analyte may be higher than the reported value.

Lead was J-coded in sample -115. Although the analyte in question has been positively identified in the sample, the quantitation is an estimate (J-coded) due to high recovery of this analyte (lead: 140% vs 75-125%) in the laboratory matrix spike. The actual concentration for this analyte may be lower than the reported value.

Analysis Comments About Results For This Analysis

1 Percent Solid**Lab:** Region 7 EPA Laboratory - Kansas City, Ks.**Method:** EPA Region 7 RLAB Method 3142.9G**Basis:** N/A

Samples: 101-__ 102-__ 103-__ 104-__ 105-__ 106-__ 106-FD
107-__ 108-__ 109-__ 110-__ 111-__ 112-__ 113-__
114-__ 114-FD 115-__ 116-__

Comments:

(N/A)

1 Pesticides in Soil by GC/EC**Lab:** Contract Lab Program (Out-Source)**Method:** CLP Statement of Work**Basis:** Dry

Samples: 101-__ 102-__ 103-__ 104-__ 105-__ 106-__ 106-FD
107-__ 108-__ 109-__ 110-__ 111-__ 112-__ 113-__
114-__ 114-FD 115-__ 116-__

Comments:**1 Semi-Volatile Organic Compounds in Soil****Lab:** Contract Lab Program (Out-Source)**Method:** CLP Statement of Work**Basis:** Dry

Samples: 101-__ 102-__ 103-__ 104-__ 105-__ 106-__ 106-FD
107-__ 108-__ 109-__ 110-__ 111-__ 112-__ 113-__
114-__ 114-FD 115-__ 116-__

Comments:

Acetophenone and caprolactam were UJ-coded in samples -103, -106, -106FD, and -113 through -115. These analytes were not found in the samples at or above the reporting limits, however, the reporting limits are an estimate (UJ-coded) due to the continuing calibration check not meeting accuracy specifications (%D: acetophenone (20.3% vs 20% and caprolactam (36.9% vs 30%). The actual reporting limits for these analytes may be lower than the reported values.

1 Semi-Volatile TPH (DRO & ORO) in Soil by GC/FID**Lab:** RASP Contract Lab (Out-Source)**Method:** Similar to Modified version of SW846 Method 8015 (see comments)

Analysis Comments About Results For This Analysis

Basis: Dry

Samples: 101-__ 102-__ 103-__ 104-__ 105-__ 106-__ 107-__
 108-__ 109-__ 110-__ 111-__ 112-__ 113-__ 114-__
 115-__ 116-__

Comments:

1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap

Lab: Contract Lab Program (Out-Source)**Method:** CLP Statement of Work**Basis:** Dry

Samples: 101-__ 102-__ 103-__ 104-__ 105-__ 106-__ 106-FD
 107-__ 108-__ 109-__ 110-__ 111-__ 112-__ 113-__
 114-__ 114-FD 115-__ 116-__

Comments:

Several samples were analyzed at medium level and sample -104 was analyzed at medium level with a dilution (7.6X), therefore, have elevated reporting limits.

Acetone was J-coded in sample -114FD. Although the analyte in question has been positively identified in the sample, the quantitation is an estimate (J-coded) due to high recovery of a surrogate analyte (2-butanone-d5: 146% vs 20-135%) in this sample. The actual concentration for this analyte may be lower than the reported value.

Bromoform, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, 1,2-dibromo-3-chloropropane, 1,2,4-trichlorobenzene, and 1,2,3-trichlorobenzene were UJ-coded in samples -106FD and -116. Associated non-detects were UJ-coded due to low internal standard response. The actual concentrations for these analytes may be higher than the reported values.

1,1-dichloroethene was UJ-coded in samples -101 through -116. This analyte was not found in the samples at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to low recovery of this analyte (non-detect vs 9.7-23 ug/kg) in the performance evaluation sample. The actual reporting limits for this analyte may be higher than the reported values.

1 Volatile TPH in Soil by GC/MS

Lab: RASP Contract Lab (Out-Source)**Method:** Similar to Volatile TPH by GC/MS (see comments)**Basis:** Dry

Samples: 101-__ 102-__ 103-__ 104-__ 105-__ 106-__ 107-__
 108-__ 109-__ 110-__ 111-__ 112-__ 113-__ 114-__
 115-__ 116-__

Analysis Comments About Results For This Analysis

Comments:

(N/A)

1 Herbicides in Water by GC/EC

Lab: Region 7 EPA Laboratory - Kansas City, Ks.**Method:** EPA Region 7 RLAB Method 3240.2J**Samples:** 201-__ 202-__ 203-__ 203-FD 204-__ 205-__ 206-__
 207-__ 211-FB 212-__**Comments:**

Interferences can add to the results on one column that causes a poor quantitation match between the two columns or can 'mask' the analyte peak. In those cases, the sample results from the column without the interference is U-coded. The following results have been U-coded for this reason: Dicamba for samples 205 and 206.

1 Mercury - Dissolved, in Water

Lab: Contract Lab Program (Out-Source)**Method:** CLP Statement of Work**Samples:** 201-__ 202-__ 203-__ 203-FD 204-__ 205-__ 206-__
 207-__ 211-FB 212-__**Comments:**

(N/A)

1 Mercury in Water

Lab: Contract Lab Program (Out-Source)**Method:** CLP Statement of Work**Samples:** 201-__ 202-__ 203-__ 203-FD 204-__ 205-__ 206-__
 207-__ 211-FB 212-__**Comments:**

1 Metals - Dissolved, in Water by ICP/MS

Lab: Contract Lab Program (Out-Source)**Method:** CLP Statement of Work**Samples:** 201-__ 202-__ 203-__ 203-FD 204-__ 205-__ 206-__
 207-__ 211-FB 212-__**Comments:**

Slight arsenic contamination was found in the preparation and/or calibration blanks. Only samples containing this analyte at a level greater than ten times the contamination level of the blank are reported without being qualified. All samples that contained this analyte but at a level less than ten times the contamination in the blank have the result U-coded indicating that the reporting limit has been raised to the level found in the sample.

Analysis Comments About Results For This Analysis

Samples affected were: arsenic in -202 and -206.

1 Metals in Water by ICP/MS

Lab: Contract Lab Program (Out-Source)

Method: CLP Statement of Work

Samples: 201-__ 202-__ 203-__ 203-FD 204-__ 205-__ 206-__
 207-__ 211-FB 212-__

Comments:

Slight arsenic contamination was found in the preparation and/or calibration blanks. Only samples containing this analyte at a level greater than ten times the contamination level of the blank are reported without being qualified. All samples that contained this analyte but at a level less than ten times the contamination in the blank have the result U-coded indicating that the reporting limit has been raised to the level found in the sample. Samples affected were: arsenic in -201, -205, -206, and -207.

1 Pesticides in Water by GC/EC

Lab: Contract Lab Program (Out-Source)

Method: CLP Statement of Work

Samples: 201-__ 202-__ 203-__ 203-FD 204-__ 205-__ 206-__
 207-__ 211-FB 212-__

Comments:

1 Semi-Volatile Organic Compounds in Water

Lab: Region 7 EPA Laboratory - Kansas City, Ks.

Method: EPA Region 7 RLAB Method 3230.2H

Samples: 201-__ 202-__ 203-__ 203-FD 204-__ 205-__ 206-__
 207-__ 211-FB 212-__

Comments:

Hexachloroethane and Hexachlorobutadiene were UJ-coded in samples 201 - 207, 203FD, 211FB and 212. These analytes were not found in the samples at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to low recovery (44% and 34%, respectively, with lower limits of 55% and 38%, respectively) of these analytes in the laboratory control sample. The actual reporting limit for these analytes may be higher than the reported value.

3,3'-Dichlorobenzidine was UJ-coded in sample 207. This analyte was not found in the sample at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to no (zero percent) recovery of this analyte in the laboratory matrix spike. The actual reporting limit for this analyte may be higher than the reported value.

Indeno(1,2,3-cd)pyrene, Dibenz(a,h)anthracene, and Benzo(g,h,i)perylene were UJ-coded in sample 207. These analytes were not found in the sample at or above the reporting

Analysis Comments About Results For This Analysis

limit, however, the reporting limit is an estimate (UJ-coded) due to poor precision (18%, 18% and 21%, respectively, with an upper limit of 12%, 15% and 14%, respectively) obtained for this analyte in the laboratory matrix spike and matrix spike duplicate. The actual reporting limit for these analytes may be higher than the reported value.

1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID**Lab:** RASP Contract Lab (Out-Source)**Method:** Similar to Modified version of SW846 Method 8015 (see comments)**Samples:** 201-__ 202-__ 203-__ 203-FD 204-__ 205-__ 206-__
 207-__ 211-FB 212-__**Comments:**

(N/A)

1 VOCs in Water by GC/MS for Low Detection Limits**Lab:** Contract Lab Program (Out-Source)**Method:** CLP Statement of Work**Samples:** 201-__ 202-__ 203-__ 203-FD 204-__ 205-__ 206-__
 207-__ 210-FB 211-FB 212-__ 213-FB**Comments:**

Samples -202 and -203FD were analyzed at dilutions appropriate to the constituent concentrations in the samples for this analysis. This increased the reporting limits by a factor of 70 times for sample -202; and by a factor of 1.7 times for sample -203FD.

Bromoform (control limits = 0.65 µg/L - 2.9 µg/L vs. 0.54 µg/L reported) was UJ-coded in samples -201 through -207, -212, -203FD, -210FB, -211FB and -213FB. This analyte was not found in the samples at or above the reporting limit; however, the reporting limit is an estimate (UJ-coded) due to low recovery of this analyte in the PE sample. The actual reporting limit for this analyte may be higher than the reported value.

1 Volatile TPH in Water by GC/MS**Lab:** RASP Contract Lab (Out-Source)**Method:** Similar to Volatile TPH by GC/MS (see comments)**Samples:** 201-__ 202-__ 203-__ 203-FD 204-__ 205-__ 206-__
 207-__ 210-FB 211-FB 212-__ 213-FB**Comments:**

(N/A)

Analysis/ Analyte	Units	1-__	2-__	3-__	4-__
1 VOCs in Air at Ambient Levels by GC/MS					
Acetone	ug/m3	100	119000 U	5950 U	29.8 U
Benzene	ug/m3	4.15	8940	447	2.24
Bromodichloromethane	ug/m3	6.7 U	67000 U	3350 U	16.8 U
Bromoform	ug/m3	10.3 U	103000 U	5170 U	25.9 U
Bromomethane	ug/m3	3.88 U	38800 U	1940 U	9.7 U
2-Butanone	ug/m3	19.1	29400 U	1470 U	7.35 U
Carbon Disulfide	ug/m3	52.8	31200 U	1560 U	7.8 U
Carbon Tetrachloride	ug/m3	0.88	8200 U	440	2.05 U
Chlorobenzene	ug/m3	4.6 U	46000 U	2300 U	11.5 U
Chloroethane	ug/m3	2.64 U	110000	8940	8.04
Chloroform	ug/m3	41.7	48800 U	2440 U	12.2 U
Chloromethane	ug/m3	2.06 U	20600 U	1030 U	5.15 U
Dibromochloromethane	ug/m3	8.52 U	85200 U	4260 U	21.3 U
1,2-Dibromoethane	ug/m3	7.68 U	76800 U	3840 U	19.2 U
1,2-Dichlorobenzene	ug/m3	6 U	60000 U	3000 U	15 U
1,3-Dichlorobenzene	ug/m3	6 U	60000 U	3000 U	15 U
1,1-Dichloroethane	ug/m3	4.04 U	40400 U	2270	10.1 U
1,2-Dichloroethane	ug/m3	0.405	4850	243	0.95 U
1,1-Dichloroethene	ug/m3	3.96 U	39600 U	1980 U	9.9 U
cis-1,2-Dichloroethene	ug/m3	3.96 U	789000	8800	60
trans-1,2-Dichloroethene	ug/m3	3.96 U	39600 U	1980 U	9.9 U
1,2-Dichloropropane	ug/m3	4.62 U	46200 U	2310 U	11.6 U
cis-1,3-Dichloropropene	ug/m3	4.54 U	45400 U	2270 U	11.4 U
trans-1,3-Dichloropropene	ug/m3	4.54 U	45400 U	2270 U	11.4 U
Ethyl Benzene	ug/m3	10.6	43400 U	2170 U	19.7
Heptane	ug/m3	10	79500	5160	23.6
Hexachlorobutadiene	ug/m3	10.7 U	107000 U	5330 U	26.7 U
Hexane	ug/m3	8.6	268000	35100	37.9
2-Hexanone	ug/m3	4.1 U	41000 U	2050 U	10.3 U
Methylene Chloride	ug/m3	17.4 U	174000 U	8700 U	43.5 U
4-Methyl-2-Pentanone	ug/m3	4.1 U	41000 U	2050 U	10.3 U
Naphthalene	ug/m3	14.3 U	52400 U	2620 U	13.1 U
Styrene	ug/m3	4.26 U	42600 U	2130 U	10.7 U
1,1,2,2-Tetrachloroethane	ug/m3	6.86 U	68600 U	3430 U	17.2 U
Tetrachloroethene	ug/m3	3.39	9490	3660	10.2
Toluene	ug/m3	35	1330000	8780	634
1,2,4-Trichlorobenzene	ug/m3	7.42 U	74200 U	3710 U	18.6 U
1,1,1-Trichloroethane	ug/m3	5.46 U	54600 U	2730 U	13.7 U
1,1,2-Trichloroethane	ug/m3	0.46 U	4600 U	230 U	1.15 U
Trichloroethene	ug/m3	1.4	8600 U	8760	16.7
1,1,2-Trichlorotrifluoroethane	ug/m3	7.66 U	76600 U	3830 U	19.2 U
1,2,4-Trimethylbenzene	ug/m3	35.5	49200 U	2460 U	68.3
1,3,5-Trimethylbenzene	ug/m3	8.75	49200 U	2460 U	29.2
Vinyl Chloride	ug/m3	0.32 U	1240000	2350	48.5
m and/or p-Xylene	ug/m3	48.5	86800 U	4340 U	75.3

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Analysis/ Analyte	Units	1-__	2-__	3-__	4-__
o-Xylene	ug/m3	14.6	43400 U	2170 U	23.7

Analysis/ Analyte	Units	5-__	6-__	7-__	9-FB
1 VOCs in Air at Ambient Levels by GC/MS					
Acetone	ug/m3	29800 U	476 U	24.3	5.95 U
Benzene	ug/m3	1550 U	24.8 U	1.02	0.31 U
Bromodichloromethane	ug/m3	16800 U	268 U	6.7 U	3.35 U
Bromoform	ug/m3	25900 U	414 U	10.3 U	5.17 U
Bromomethane	ug/m3	9700 U	155 U	3.88 U	1.94 U
2-Butanone	ug/m3	7350 U	118 U	3.6	1.47 U
Carbon Disulfide	ug/m3	7800 U	125 U	3.12 U	1.56 U
Carbon Tetrachloride	ug/m3	2050 U	32.8 U	1.26	0.41 U
Chlorobenzene	ug/m3	11500 U	184 U	4.6 U	2.3 U
Chloroethane	ug/m3	6600 U	106 U	8.28	1.32 U
Chloroform	ug/m3	12200 U	195 U	4.88 U	2.44 U
Chloromethane	ug/m3	5150 U	82.4 U	2.06 U	1.03 U
Dibromochloromethane	ug/m3	21300 U	341 U	8.52 U	4.26 U
1,2-Dibromoethane	ug/m3	19200 U	307 U	7.68 U	3.84 U
1,2-Dichlorobenzene	ug/m3	15000 U	240 U	6 U	3 U
1,3-Dichlorobenzene	ug/m3	15000 U	240 U	6 U	3 U
1,1-Dichloroethane	ug/m3	10100 U	162 U	4.04 U	2.02 U
1,2-Dichloroethane	ug/m3	950 U	15.2 U	0.405	0.19 U
1,1-Dichloroethene	ug/m3	24400	158 U	3.96 U	1.98 U
cis-1,2-Dichloroethene	ug/m3	24600	158 U	67.6	1.98 U
trans-1,2-Dichloroethene	ug/m3	9900 U	158 U	3.96 U	1.98 U
1,2-Dichloropropane	ug/m3	11600 U	185 U	4.62 U	2.31 U
cis-1,3-Dichloropropene	ug/m3	11400 U	182 U	4.54 U	2.27 U
trans-1,3-Dichloropropene	ug/m3	11400 U	182 U	4.54 U	2.27 U
Ethyl Benzene	ug/m3	10900 U	174 U	4.34 U	2.17 U
Heptane	ug/m3	10300 U	164 U	7.7	2.05 U
Hexachlorobutadiene	ug/m3	26700 U	426 U	10.7 U	5.33 U
Hexane	ug/m3	8800 U	141 U	26.1	1.87
2-Hexanone	ug/m3	10300 U	164 U	4.1 U	2.05 U
Methylene Chloride	ug/m3	43500 U	696 U	17.4 U	16.5
4-Methyl-2-Pentanone	ug/m3	10300 U	164 U	4.1 U	2.05 U
Naphthalene	ug/m3	13100 U	210 U	5.24 U	2.62 U
Styrene	ug/m3	10700 U	170 U	4.26 U	2.13 U
1,1,2,2-Tetrachloroethane	ug/m3	17200 U	274 U	6.86 U	3.43 U
Tetrachloroethene	ug/m3	41700	70.5	1.08	0.41 U
Toluene	ug/m3	9980	150 U	133	1.88 U
1,2,4-Trichlorobenzene	ug/m3	18600 U	297 U	7.42 U	3.71 U
1,1,1-Trichloroethane	ug/m3	545000	6330	5.46 U	2.73 U
1,1,2-Trichloroethane	ug/m3	1150 U	18.4 U	0.46 U	0.23 U
Trichloroethene	ug/m3	924000	3090	6.45	0.43 U
1,1,2-Trichlorotrifluoroethane	ug/m3	37900	1230	7.66 U	3.83 U
1,2,4-Trimethylbenzene	ug/m3	12300 U	197 U	4.92 U	2.46 U
1,3,5-Trimethylbenzene	ug/m3	12300 U	197 U	4.92 U	2.46 U
Vinyl Chloride	ug/m3	1530	12.8 U	84.4	0.16 U
m and/or p-Xylene	ug/m3	21700 U	347 U	8.68 U	4.34 U

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Analysis/ Analyte	Units	5-__	6-__	7-__	9-FB
o-Xylene	ug/m3	10900 U	174 U	4.34 U	2.17 U

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Analysis/ Analyte	Units	101-__	102-__	103-__	104-__
1 Herbicides in Soil by GC/EC					
2,4,5-T	ug/kg	13	11 U	24 U	16 U
2,4,5-TP	ug/kg	11 U	11 U	24 U	16 U
2,4-D	ug/kg	22 U	23 U	150	31 U
Dicamba	ug/kg	11 U	11 U	24 U	16 U
Pentachlorophenol	ug/kg	4.5 U	4.6 U	53	6.2 U
1 Mercury in Soil or Sediment					
Mercury	mg/kg	0.11 U	0.11 U	0.11 U	0.14 U
1 Metals in Solids by ICP-AES					
Aluminum	mg/kg	9430	5380	9700	5200
Antimony	mg/kg	6.2 U	6.0 U	6.0 U	6.7 U
Arsenic	mg/kg	9.3	7.4	7.9	3.6 U
Barium	mg/kg	103	124	70.1	76.1
Beryllium	mg/kg	0.90	0.50 U	0.64	0.56 U
Cadmium	mg/kg	0.51 U	0.50 U	5.3	1.4
Calcium	mg/kg	2170	2210	2740	7090
Chromium	mg/kg	16.0	12.2	19.3	11.7
Cobalt	mg/kg	23.8	9.7	9.4	5.6 UJ
Copper	mg/kg	27.3	16.4	24.4	20.0
Iron	mg/kg	27500	27900	23600	9950
Lead	mg/kg	11.1	8.8	86.2	116
Magnesium	mg/kg	1830	1600	1780	2970
Manganese	mg/kg	755	1940	247	115
Nickel	mg/kg	23.6	20.8	20.2	15.0
Potassium	mg/kg	515 U	498 U	636	563
Selenium	mg/kg	3.6 U	3.5 U	3.5 U	3.9 U
Silver	mg/kg	1.0 UJ	1.0 UJ	0.99 UJ	1.1 UJ
Sodium	mg/kg	515 U	498 U	497 U	558 U
Thallium	mg/kg	2.6 UJ	2.5 UJ	2.5 UJ	2.8 UJ
Vanadium	mg/kg	33.1	18.0	27.8	17.6
Zinc	mg/kg	36.1	38.1	129	83.8
1 Percent Solid					
Solids, percent	%	88.6	86.3	81.9	63.3
1 Pesticides in Soil by GC/EC					
Aldrin	ug/kg	1.9 U	2.1 U	2.1 U	3.0 U
Aroclor 1016	ug/kg	38 U	40 U	41 U	57 U
Aroclor 1221	ug/kg	38 U	40 U	41 U	57 U
Aroclor 1232	ug/kg	38 U	40 U	41 U	57 U
Aroclor 1242	ug/kg	38 U	40 U	41 U	57 U
Aroclor 1248	ug/kg	38 U	40 U	41 U	57 U
Aroclor 1254	ug/kg	38 U	40 U	180	81
Aroclor 1260	ug/kg	38 U	40 U	41 U	57 U
Aroclor 1262	ug/kg	38 U	40 U	41 U	57 U
Aroclor 1268	ug/kg	38 U	40 U	41 U	57 U
A-BHC	ug/kg	1.9 U	2.1 U	2.1 U	3.0 U
B-BHC	ug/kg	1.9 U	2.1 U	2.1 U	3.0 U

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Analysis/ Analyte	Units	101-__	102-__	103-__	104-__
D-BHC	ug/kg	1.9 U	2.1 U	2.1 U	3.0 U
G-BHC	ug/kg	1.9 U	2.1 U	2.1 U	3.0 U
cis-Chlordane	ug/kg	1.9 U	2.1 U	2.1 U	3.0 U
trans-Chlordane	ug/kg	1.9 U	2.1 U	2.1 U	3.0 U
p,p'-DDD	ug/kg	3.8 U	4.0 U	4.6	8.5
p,p'-DDE	ug/kg	3.8 U	4.0 U	4.1 U	5.8 U
p,p'-DDT	ug/kg	3.8 U	4.0 U	4.1 U	5.8 U
Dieldrin	ug/kg	3.8 U	4.0 U	4.1 U	5.8 U
Endosulfan I	ug/kg	1.9 U	2.1 U	2.1 U	3.0 U
Endosulfan II	ug/kg	3.8 U	4.0 U	4.1 U	5.8 U
Endosulfan Sulfate	ug/kg	3.8 U	4.0 U	4.1 U	5.8 U
Endrin	ug/kg	3.8 U	4.0 U	4.1 U	5.8 U
Endrin Aldehyde	ug/kg	3.8 U	4.0 U	4.1 U	5.8 U
Endrin Ketone	ug/kg	3.8 U	4.0 U	4.1 U	5.8 U
Heptachlor	ug/kg	1.9 U	2.1 U	2.1 U	3.0 U
Heptachlor Epoxide	ug/kg	1.9 U	2.1 U	2.1 U	3.0 U
p,p'-Methoxychlor	ug/kg	19 U	21 U	21 U	30 U
Toxaphene	ug/kg	190 U	210 U	210 U	300 U
1 Semi-Volatile Organic Compounds in Soil					
Acenaphthene	ug/kg	190 U	200 U	220 U	290 U
Acenaphthylene	ug/kg	190 U	200 U	220 U	290 U
Acetophenone	ug/kg	370 U	390 U	420 U	570 U
Anthracene	ug/kg	190 U	200 U	220 U	290 U
Atrazine	ug/kg	370 U	390 U	420 U	570 U
Benzaldehyde	ug/kg	370 U	390 U	420 U	570 U
Benzo(a)anthracene	ug/kg	190 U	200 U	220 U	290 U
Benzo(a)pyrene	ug/kg	190 U	200 U	220 U	290 U
Benzo(b)fluoranthene	ug/kg	190 U	200 U	220 U	290 U
Benzo(g,h,i)perylene	ug/kg	190 U	200 U	220 U	290 U
Benzo(k)fluoranthene	ug/kg	190 U	200 U	220 U	290 U
Biphenyl	ug/kg	190 U	200 U	220 U	290 U
bis(2-Chloroethoxy)methane	ug/kg	190 U	200 U	220 U	290 U
bis(2-Chloroethyl)ether	ug/kg	370 U	390 U	420 U	570 U
bis(2-Ethylhexyl)phthalate	ug/kg	190 U	200 U	220 U	290 U
4-Bromophenyl-phenylether	ug/kg	190 U	200 U	220 U	290 U
Butylbenzylphthalate	ug/kg	190 U	200 U	220 U	290 U
Caprolactam	ug/kg	370 U	390 U	420 U	570 U
Carbazole	ug/kg	370 U	390 U	420 U	570 U
4-Chloro-3-methylphenol	ug/kg	190 U	200 U	220 U	290 U
4-Chloroaniline	ug/kg	370 U	390 U	420 U	570 U
2-Chloronaphthalene	ug/kg	190 U	200 U	220 U	290 U
2-Chlorophenol	ug/kg	190 U	200 U	220 U	290 U
4-Chlorophenyl-phenylether	ug/kg	190 U	200 U	220 U	290 U
Chrysene	ug/kg	190 U	200 U	220 U	290 U
Di-n-butylphthalate	ug/kg	190 U	200 U	220 U	290 U

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Analysis/ Analyte	Units	101-__	102-__	103-__	104-__
Di-n-octylphthalate	ug/kg	370 U	390 U	420 U	570 U
Dibenz(a,h)anthracene	ug/kg	190 U	200 U	220 U	290 U
Dibenzofuran	ug/kg	190 U	200 U	220 U	290 U
3,3'-Dichlorobenzidine	ug/kg	370 U	390 U	420 U	570 U
2,4-Dichlorophenol	ug/kg	190 U	200 U	220 U	290 U
Diethylphthalate	ug/kg	190 U	200 U	220 U	290 U
2,4-Dimethylphenol	ug/kg	190 U	200 U	220 U	290 U
Dimethylphthalate	ug/kg	190 U	200 U	220 U	290 U
4,6-Dinitro-2-methylphenol	ug/kg	370 U	390 U	420 U	570 U
2,4-Dinitrophenol	ug/kg	370 U	390 U	420 U	570 U
2,4-Dinitrotoluene	ug/kg	190 U	200 U	220 U	290 U
2,6-Dinitrotoluene	ug/kg	190 U	200 U	220 U	290 U
Fluoranthene	ug/kg	370 U	390 U	420 U	570 U
Fluorene	ug/kg	190 U	200 U	220 U	290 U
Hexachlorobenzene	ug/kg	190 U	200 U	220 U	290 U
Hexachlorobutadiene	ug/kg	190 U	200 U	220 U	290 U
Hexachlorocyclopentadiene	ug/kg	370 U	390 U	420 U	570 U
Hexachloroethane	ug/kg	190 U	200 U	220 U	290 U
Indeno(1,2,3-cd)pyrene	ug/kg	190 U	200 U	220 U	290 U
Isophorone	ug/kg	190 U	200 U	220 U	290 U
2-Methylnaphthalene	ug/kg	190 U	200 U	220 U	290 U
2-Methylphenol	ug/kg	370 U	390 U	420 U	570 U
4-Methylphenol	ug/kg	370 U	390 U	420 U	570 U
Naphthalene	ug/kg	190 U	200 U	220 U	290 U
2-Nitroaniline	ug/kg	190 U	200 U	220 U	290 U
3-Nitroaniline	ug/kg	370 U	390 U	420 U	570 U
4-Nitroaniline	ug/kg	370 U	390 U	420 U	570 U
Nitrobenzene	ug/kg	190 U	200 U	220 U	290 U
2-Nitrophenol	ug/kg	190 U	200 U	220 U	290 U
4-Nitrophenol	ug/kg	370 U	390 U	420 U	570 U
N-nitroso-di-n-propylamine	ug/kg	190 U	200 U	220 U	290 U
N-nitrosodiphenylamine	ug/kg	190 U	200 U	220 U	290 U
Pentachlorophenol	ug/kg	370 U	390 U	420 U	570 U
Phenanthrene	ug/kg	190 U	200 U	220 U	290 U
Phenol	ug/kg	370 U	390 U	420 U	570 U
Pyrene	ug/kg	190 U	200 U	220 U	290 U
1,2,4,5-Tetrachlorobenzene	ug/kg	190 U	200 U	220 U	290 U
2,4,5-Trichlorophenol	ug/kg	190 U	200 U	220 U	290 U
2,4,6-Trichlorophenol	ug/kg	190 U	200 U	220 U	290 U
1 Semi-Volatile TPH (DRO & ORO) in Soil by GC/FID					
TPH DRO	mg/kg	9.56 U	9.6 U	509	36.5
TPH ORO	mg/kg	76.6 U	76.9 U	666	95.4 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	49	49	960 U	27000
Benzene	ug/kg	5.9 U	4.7 U	480 U	8000 U

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Analysis/ Analyte	Units	101-__	102-__	103-__	104-__
Bromochloromethane	ug/kg	5.9 U	4.7 U	480 U	8000 U
Bromodichloromethane	ug/kg	5.9 U	4.7 U	480 U	8000 U
Bromoform	ug/kg	5.9 U	4.7 U	480 U	8000 U
Bromomethane	ug/kg	5.9 U	4.7 U	480 U	8000 U
2-Butanone	ug/kg	12 U	12	960 U	16000 U
Carbon Disulfide	ug/kg	5.9 U	4.7 U	480 U	8000 U
Carbon Tetrachloride	ug/kg	5.9 U	4.7 U	480 U	8000 U
Chlorobenzene	ug/kg	5.9 U	4.7 U	480 U	8000 U
Chloroethane	ug/kg	5.9 U	4.7 U	480 U	8000 U
Chloroform	ug/kg	5.9 U	4.7 U	480 U	8000 U
Chloromethane	ug/kg	5.9 U	4.7 U	480 U	8000 U
Cyclohexane	ug/kg	5.9 U	4.7 U	480 U	8000 U
1,2-Dibromo-3-Chloropropane	ug/kg	5.9 U	4.7 U	480 U	8000 U
Dibromochloromethane	ug/kg	5.9 U	4.7 U	480 U	8000 U
1,2-Dibromoethane	ug/kg	5.9 U	4.7 U	480 U	8000 U
1,2-Dichlorobenzene	ug/kg	5.9 U	4.7 U	480 U	8000 U
1,3-Dichlorobenzene	ug/kg	5.9 U	4.7 U	480 U	8000 U
1,4-Dichlorobenzene	ug/kg	5.9 U	4.7 U	480 U	8000 U
Dichlorodifluoromethane	ug/kg	5.9 U	4.7 U	480 U	8000 U
1,1-Dichloroethane	ug/kg	5.9 U	4.7 U	480 U	8000 U
1,2-Dichloroethane	ug/kg	5.9 U	4.7 U	480 U	8000 U
1,1-Dichloroethene	ug/kg	5.9 U	4.7 U	480 U	8000 U
cis-1,2-Dichloroethene	ug/kg	5.9 U	4.7 U	6700	230000
trans-1,2-Dichloroethene	ug/kg	5.9 U	4.7 U	480 U	8000 U
1,2-Dichloropropane	ug/kg	5.9 U	4.7 U	480 U	8000 U
cis-1,3-Dichloropropene	ug/kg	5.9 U	4.7 U	480 U	8000 U
trans-1,3-Dichloropropene	ug/kg	5.9 U	4.7 U	480 U	8000 U
Ethyl Benzene	ug/kg	5.9 U	4.7 U	480 U	8000 U
2-Hexanone	ug/kg	12 U	9.4 U	960 U	16000 U
Isopropylbenzene	ug/kg	5.9 U	4.7 U	480 U	8000 U
Methyl Acetate	ug/kg	5.9 U	4.7 U	480 U	8000 U
Methyl tert-butyl ether	ug/kg	5.9 U	4.7 U	480 U	8000 U
Methylcyclohexane	ug/kg	5.9 U	4.7 U	480 U	8000 U
Methylene Chloride	ug/kg	5.9 U	4.7 U	480 U	8000 U
4-Methyl-2-Pentanone	ug/kg	12 U	9.4 U	960 U	16000 U
Styrene	ug/kg	5.9 U	4.7 U	480 U	8000 U
1,1,2,2-Tetrachloroethane	ug/kg	5.9 U	4.7 U	480 U	8000 U
Tetrachloroethene	ug/kg	5.9 U	4.7 U	480 U	8000 U
Toluene	ug/kg	5.9 U	4.7 U	1300	33000
1,2,3-Trichlorobenzene	ug/kg	5.9 U	4.7 U	480 U	8000 U
1,2,4-Trichlorobenzene	ug/kg	5.9 U	4.7 U	480 U	8000 U
1,1,1-Trichloroethane	ug/kg	5.9 U	4.7 U	480 U	8000 U
1,1,2-Trichloroethane	ug/kg	5.9 U	4.7 U	480 U	8000 U
Trichloroethene	ug/kg	5.9 U	4.7 U	480 U	52000
Trichlorofluoromethane	ug/kg	5.9 U	4.7 U	480 U	8000 U

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Analysis/ Analyte	Units	101-__	102-__	103-__	104-__
1,1,2-Trichlorotrifluoroethane	ug/kg	5.9 U	4.7 U	480 U	8000 U
Vinyl Chloride	ug/kg	5.9 U	4.7 U	480 U	35000
m and/or p-Xylene	ug/kg	5.9 U	4.7 U	480 U	8000 U
o-Xylene	ug/kg	5.9 U	4.7 U	480 U	8000 U
1 Volatile TPH in Soil by GC/MS					
TPH GRO	mg/kg	2.13 U	2.04 U	12.3	53.7

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Analysis/ Analyte	Units	105-__	106-__	106-FD	107-__
1 Herbicides in Soil by GC/EC					
2,4,5-T	ug/kg	16 U	12 U	12 U	11 U
2,4,5-TP	ug/kg	16 U	12 U	12 U	11 U
2,4-D	ug/kg	95 U	160 U	48 U	22 U
Dicamba	ug/kg	21	12 U	12 U	11 U
Pentachlorophenol	ug/kg	9.4	66 J	28	4.3 U
1 Mercury in Soil or Sediment					
Mercury	mg/kg	0.15 U	0.14	0.12	0.097 U
1 Metals in Solids by ICP-AES					
Aluminum	mg/kg	8240	3560	3540	4490
Antimony	mg/kg	9.2 U	6.9 U	5.9 U	5.2 U
Arsenic	mg/kg	5.3	4.9	7.3	5.4
Barium	mg/kg	113	72.1	67.8	64.9
Beryllium	mg/kg	0.77 U	0.58 U	0.49 U	0.47
Cadmium	mg/kg	1.4	2.2	2.4	0.43 U
Calcium	mg/kg	9230	11300	5500	1140 U
Chromium	mg/kg	32.0	20.8	25.7	8.6
Cobalt	mg/kg	8.9	6.1	7.2	7.2
Copper	mg/kg	34.5	48.5	66.4	12.1
Iron	mg/kg	21800	26100	38200	15500
Lead	mg/kg	199	193	143	8.2 J
Magnesium	mg/kg	4530	5340	1620	782
Manganese	mg/kg	235	281	298	719
Nickel	mg/kg	26.9	14.8	20.3	14.6
Potassium	mg/kg	770 U	577 U	490 U	430 U
Selenium	mg/kg	5.4 U	4.0 U	4.3 U	3.0 U
Silver	mg/kg	1.5 UJ	1.2 UJ	0.98 UJ	0.86 UJ
Sodium	mg/kg	770 U	577 U	490 U	430 U
Thallium	mg/kg	3.9 UJ	2.9 UJ	2.5 UJ	2.2 UJ
Vanadium	mg/kg	23.6	6.6	4.9	17.2
Zinc	mg/kg	159	218	231	26.5
1 Percent Solid					
Solids, percent	%	61.9	84.2	84.7	92.3
1 Pesticides in Soil by GC/EC					
Aldrin	ug/kg	3.0 U	2.0 U	2.0 U	1.9 U
Aroclor 1016	ug/kg	60 U	39 U	39 U	36 U
Aroclor 1221	ug/kg	60 U	39 U	39 U	36 U
Aroclor 1232	ug/kg	60 U	39 U	39 U	36 U
Aroclor 1242	ug/kg	60 U	39 U	39 U	36 U
Aroclor 1248	ug/kg	60 U	39 U	39 U	36 U
Aroclor 1254	ug/kg	180	890	1500	36 U
Aroclor 1260	ug/kg	60 U	39 U	39 U	36 U
Aroclor 1262	ug/kg	60 U	39 U	39 U	36 U
Aroclor 1268	ug/kg	60 U	39 U	39 U	36 U
A-BHC	ug/kg	3.0 U	2.0 U	2.0 U	1.9 U
B-BHC	ug/kg	3.0 U	2.0 U	2.0 U	1.9 U

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Analysis/ Analyte	Units	105-__	106-__	106-FD	107-__
D-BHC	ug/kg	3.0 U	2.0 U	2.0 U	1.9 U
G-BHC	ug/kg	3.0 U	2.0 U	2.7	1.9 U
cis-Chlordane	ug/kg	3.0 U	2.0 U	2.0 U	1.9 U
trans-Chlordane	ug/kg	3.0 U	2.0 U	6.3	1.9 U
p,p'-DDD	ug/kg	5.9 U	3.9 U	7.9	3.6 U
p,p'-DDE	ug/kg	5.9 U	3.9 U	3.8 U	3.6 U
p,p'-DDT	ug/kg	5.9 U	3.9 U	3.8 U	3.6 U
Dieldrin	ug/kg	5.9 U	3.9 U	13	3.6 U
Endosulfan I	ug/kg	3.0 U	2.0 U	2.0 U	1.9 U
Endosulfan II	ug/kg	5.9 U	3.9 U	3.8 U	3.6 U
Endosulfan Sulfate	ug/kg	5.9 U	3.9 U	3.8 U	3.6 U
Endrin	ug/kg	5.9 U	3.9 U	3.8 U	3.6 U
Endrin Aldehyde	ug/kg	5.9 U	3.9 U	3.8 U	3.6 U
Endrin Ketone	ug/kg	5.9 U	3.9 U	3.8 U	3.6 U
Heptachlor	ug/kg	3.0 U	2.0 U	2.0 U	1.9 U
Heptachlor Epoxide	ug/kg	3.0 U	2.0 U	6.1	1.9 U
p,p'-Methoxychlor	ug/kg	30 U	20 U	20 U	19 U
Toxaphene	ug/kg	300 U	200 U	200 U	190 U
1 Semi-Volatile Organic Compounds in Soil					
Acenaphthene	ug/kg	310 U	1100 U	670 U	190 U
Acenaphthylene	ug/kg	310 U	1100 U	670 U	190 U
Acetophenone	ug/kg	590 U	2100 UJ	1300 UJ	360 U
Anthracene	ug/kg	310 U	1100 U	670 U	190 U
Atrazine	ug/kg	590 U	2100 U	1300 U	360 U
Benzaldehyde	ug/kg	590 U	2100 U	1300 U	360 U
Benzo(a)anthracene	ug/kg	310 U	1100 U	670 U	190 U
Benzo(a)pyrene	ug/kg	310 U	1100 U	670 U	190 U
Benzo(b)fluoranthene	ug/kg	310 U	1100 U	670 U	190 U
Benzo(g,h,i)perylene	ug/kg	310 U	1100 U	670 U	190 U
Benzo(k)fluoranthene	ug/kg	310 U	1100 U	670 U	190 U
Biphenyl	ug/kg	310 U	1100 U	670 U	190 U
bis(2-Chloroethoxy)methane	ug/kg	310 U	1100 U	670 U	190 U
bis(2-Chloroethyl)ether	ug/kg	590 U	2100 U	1300 U	360 U
bis(2-Ethylhexyl)phthalate	ug/kg	410	12000	6000	970
4-Bromophenyl-phenylether	ug/kg	310 U	1100 U	670 U	190 U
Butylbenzylphthalate	ug/kg	310 U	1100 U	670 U	190 U
Caprolactam	ug/kg	590 U	2100 UJ	1300 UJ	360 U
Carbazole	ug/kg	590 U	2100 U	1300 U	360 U
4-Chloro-3-methylphenol	ug/kg	310 U	1100 U	670 U	190 U
4-Chloroaniline	ug/kg	590 U	2100 U	1300 U	360 U
2-Chloronaphthalene	ug/kg	310 U	1100 U	670 U	190 U
2-Chlorophenol	ug/kg	310 U	1100 U	670 U	190 U
4-Chlorophenyl-phenylether	ug/kg	310 U	1100 U	670 U	190 U
Chrysene	ug/kg	310 U	1100 U	670 U	190 U
Di-n-butylphthalate	ug/kg	310 U	1100 U	670 U	190 U

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Analysis/ Analyte	Units	105-__	106-__	106-FD	107-__
Di-n-octylphthalate	ug/kg	590 U	2100 U	1300 U	360 U
Dibenz(a,h)anthracene	ug/kg	310 U	1100 U	670 U	190 U
Dibenzofuran	ug/kg	310 U	1100 U	670 U	190 U
3,3'-Dichlorobenzidine	ug/kg	590 U	2100 U	1300 U	360 U
2,4-Dichlorophenol	ug/kg	310 U	1100 U	670 U	190 U
Diethylphthalate	ug/kg	310 U	1100 U	670 U	190 U
2,4-Dimethylphenol	ug/kg	310 U	1100 U	670 U	190 U
Dimethylphthalate	ug/kg	310 U	1100 U	670 U	190 U
4,6-Dinitro-2-methylphenol	ug/kg	590 U	2100 U	1300 U	360 U
2,4-Dinitrophenol	ug/kg	590 U	2100 U	1300 U	360 U
2,4-Dinitrotoluene	ug/kg	310 U	1100 U	670 U	190 U
2,6-Dinitrotoluene	ug/kg	310 U	1100 U	670 U	190 U
Fluoranthene	ug/kg	590 U	2100 U	1300 U	360 U
Fluorene	ug/kg	310 U	1100 U	670 U	190 U
Hexachlorobenzene	ug/kg	310 U	1100 U	670 U	190 U
Hexachlorobutadiene	ug/kg	310 U	1100 U	670 U	190 U
Hexachlorocyclopentadiene	ug/kg	590 U	2100 U	1300 U	360 U
Hexachloroethane	ug/kg	310 U	1100 U	670 U	190 U
Indeno(1,2,3-cd)pyrene	ug/kg	310 U	1100 U	670 U	190 U
Isophorone	ug/kg	310 U	1100 U	670 U	190 U
2-Methylnaphthalene	ug/kg	310 U	1100 U	670 U	190 U
2-Methylphenol	ug/kg	590 U	2100 U	1300 U	360 U
4-Methylphenol	ug/kg	590 U	2100 U	1300 U	360 U
Naphthalene	ug/kg	310 U	1100 U	670 U	190 U
2-Nitroaniline	ug/kg	310 U	1100 U	670 U	190 U
3-Nitroaniline	ug/kg	590 U	2100 U	1300 U	360 U
4-Nitroaniline	ug/kg	590 U	2100 U	1300 U	360 U
Nitrobenzene	ug/kg	310 U	1100 U	670 U	190 U
2-Nitrophenol	ug/kg	310 U	1100 U	670 U	190 U
4-Nitrophenol	ug/kg	590 U	2100 U	1300 U	360 U
N-nitroso-di-n-propylamine	ug/kg	310 U	1100 U	670 U	190 U
N-nitrosodiphenylamine	ug/kg	310 U	1100 U	670 U	190 U
Pentachlorophenol	ug/kg	590 U	2100 U	1300 U	360 U
Phenanthrene	ug/kg	310 U	1100 U	670 U	190 U
Phenol	ug/kg	590 U	2100 U	1300 U	360 U
Pyrene	ug/kg	310 U	1100 U	670 U	190 U
1,2,4,5-Tetrachlorobenzene	ug/kg	310 U	1100 U	670 U	190 U
2,4,5-Trichlorophenol	ug/kg	310 U	1100 U	670 U	190 U
2,4,6-Trichlorophenol	ug/kg	310 U	1100 U	670 U	190 U
1 Semi-Volatile TPH (DRO & ORO) in Soil by GC/FID					
TPH DRO	mg/kg	39.7	231		9.04 U
TPH ORO	mg/kg	123	591		72.4 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	3000	3100	98	54
Benzene	ug/kg	690 U	390 U	31	5.7 U

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Analysis/ Analyte	Units	105-__	106-__	106-FD	107-__
Bromochloromethane	ug/kg	690 U	390 U	5.2 U	5.7 U
Bromodichloromethane	ug/kg	690 U	390 U	5.2 U	5.7 U
Bromoform	ug/kg	690 U	390 U	5.2 UJ	5.7 U
Bromomethane	ug/kg	690 U	390 U	5.2 U	5.7 U
2-Butanone	ug/kg	1400 U	790 U	19	11 U
Carbon Disulfide	ug/kg	690 U	390 U	5.2 U	5.7 U
Carbon Tetrachloride	ug/kg	690 U	390 U	5.2 U	5.7 U
Chlorobenzene	ug/kg	690 U	390 U	5.2 U	5.7 U
Chloroethane	ug/kg	690 U	390 U	53	5.7 U
Chloroform	ug/kg	690 U	390 U	5.2 U	5.7 U
Chloromethane	ug/kg	690 U	390 U	5.2 U	5.7 U
Cyclohexane	ug/kg	690 U	390 U	97	5.7 U
1,2-Dibromo-3-Chloropropane	ug/kg	690 U	390 U	5.2 UJ	5.7 U
Dibromochloromethane	ug/kg	690 U	390 U	5.2 U	5.7 U
1,2-Dibromoethane	ug/kg	690 U	390 U	5.2 U	5.7 U
1,2-Dichlorobenzene	ug/kg	690 U	390 U	5.2 UJ	5.7 U
1,3-Dichlorobenzene	ug/kg	690 U	390 U	5.2 UJ	5.7 U
1,4-Dichlorobenzene	ug/kg	690 U	390 U	5.2 UJ	5.7 U
Dichlorodifluoromethane	ug/kg	690 U	390 U	5.2 U	5.7 U
1,1-Dichloroethane	ug/kg	690 U	390 U	5.2 U	5.7 U
1,2-Dichloroethane	ug/kg	690 U	390 U	5.2 U	5.7 U
1,1-Dichloroethene	ug/kg	690 UJ	390 UJ	5.2 UJ	5.7 UJ
cis-1,2-Dichloroethene	ug/kg	11000	390 U	150	5.7 U
trans-1,2-Dichloroethene	ug/kg	690 U	390 U	5.2 U	5.7 U
1,2-Dichloropropane	ug/kg	690 U	390 U	5.2 U	5.7 U
cis-1,3-Dichloropropene	ug/kg	690 U	390 U	5.2 U	5.7 U
trans-1,3-Dichloropropene	ug/kg	690 U	390 U	5.2 U	5.7 U
Ethyl Benzene	ug/kg	690 U	390 U	5.2 U	5.7 U
2-Hexanone	ug/kg	1400 U	790 U	10 U	11 U
Isopropylbenzene	ug/kg	690 U	390 U	5.2 U	5.7 U
Methyl Acetate	ug/kg	690 U	390 U	5.2 U	5.7 U
Methyl tert-butyl ether	ug/kg	690 U	390 U	5.2 U	5.7 U
Methylcyclohexane	ug/kg	690 U	390 U	140	5.7 U
Methylene Chloride	ug/kg	690 U	390 U	5.2 U	5.7 U
4-Methyl-2-Pentanone	ug/kg	1400 U	790 U	10 U	11 U
Styrene	ug/kg	690 U	390 U	5.2 U	5.7 U
1,1,2,2-Tetrachloroethane	ug/kg	690 U	390 U	5.2 U	5.7 U
Tetrachloroethene	ug/kg	690 U	960	43	5.7 U
Toluene	ug/kg	690 U	470	100	5.7 U
1,2,3-Trichlorobenzene	ug/kg	690 U	390 U	5.2 UJ	5.7 U
1,2,4-Trichlorobenzene	ug/kg	690 U	390 U	5.2 UJ	5.7 U
1,1,1-Trichloroethane	ug/kg	690 U	390 U	5.2 U	5.7 U
1,1,2-Trichloroethane	ug/kg	690 U	390 U	5.2 U	5.7 U
Trichloroethene	ug/kg	690 U	1100	50	5.7 U
Trichlorofluoromethane	ug/kg	690 U	390 U	5.2 U	5.7 U

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Analysis/ Analyte	Units	105-__	106-__	106-FD	107-__
1,1,2-Trichlorotrifluoroethane	ug/kg	690 U	390 U	5.2 U	5.7 U
Vinyl Chloride	ug/kg	3000	390 U	5.2 U	5.7 U
m and/or p-Xylene	ug/kg	690 U	390 U	5.2 U	5.7 U
o-Xylene	ug/kg	690 U	390 U	5.2 U	5.7 U
1 Volatile TPH in Soil by GC/MS					
TPH GRO	mg/kg	21.8	2.32 U		2.24 U

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Analysis/ Analyte	Units	108-__	109-__	110-__	111-__
1 Herbicides in Soil by GC/EC					
2,4,5-T	ug/kg	12 U	11 U	12 U	11 U
2,4,5-TP	ug/kg	12 U	11 U	12 U	11 U
2,4-D	ug/kg	23 U	22 U	24 U	21 U
Dicamba	ug/kg	12 U	11 U	12 U	11 U
Pentachlorophenol	ug/kg	4.7 U	4.5 U	4.8 U	4.3 U
1 Mercury in Soil or Sediment					
Mercury	mg/kg	0.10 U	0.10 U	0.11 U	0.12 U
1 Metals in Solids by ICP-AES					
Aluminum	mg/kg	1900	8140	5470	5350
Antimony	mg/kg	6.1 U	5.8 U	5.8 U	6.8 U
Arsenic	mg/kg	1.7 U	8.5	3.5 U	10.3
Barium	mg/kg	22.1	103	60.3	93.3
Beryllium	mg/kg	0.51 U	0.59	0.49 U	0.57 U
Cadmium	mg/kg	0.51 U	0.48 U	0.49 U	0.57 U
Calcium	mg/kg	807 U	14300	48900	1220 U
Chromium	mg/kg	7.0	15.3	11.6	13.4
Cobalt	mg/kg	5.6	8.5	4.9 UJ	18.5
Copper	mg/kg	6.6	16.6	10.7	13.1
Iron	mg/kg	8310	17800	11700	15100
Lead	mg/kg	7.4 J	11.5	6.0 UJ	11.0
Magnesium	mg/kg	520	9360	26800	1100
Manganese	mg/kg	213	503	298	1260
Nickel	mg/kg	12.0	23.2	10.5	23.5
Potassium	mg/kg	512 U	542	487 U	569 U
Selenium	mg/kg	3.6 U	3.4 U	3.4 U	4.0 U
Silver	mg/kg	1.0 UJ	0.96 UJ	0.97 UJ	1.1 UJ
Sodium	mg/kg	512 U	479 U	487 U	569 U
Thallium	mg/kg	2.6 UJ	2.4 UJ	3.1 J	2.8 UJ
Vanadium	mg/kg	14.0	26.4	20.0	23.9
Zinc	mg/kg	12.1	38.6	26.2	27.3
1 Percent Solid					
Solids, percent	%	85.0	89.1	83.7	92.8
1 Pesticides in Soil by GC/EC					
Aldrin	ug/kg	2.0 U	2.0 U	2.0 U	1.9 U
Aroclor 1016	ug/kg	38 U	38 U	39 U	37 U
Aroclor 1221	ug/kg	38 U	38 U	39 U	37 U
Aroclor 1232	ug/kg	38 U	38 U	39 U	37 U
Aroclor 1242	ug/kg	38 U	38 U	39 U	37 U
Aroclor 1248	ug/kg	38 U	38 U	39 U	37 U
Aroclor 1254	ug/kg	38 U	420	39 U	37 U
Aroclor 1260	ug/kg	38 U	38 U	39 U	37 U
Aroclor 1262	ug/kg	38 U	38 U	39 U	37 U
Aroclor 1268	ug/kg	38 U	38 U	39 U	37 U
A-BHC	ug/kg	2.0 U	2.0 U	2.0 U	1.9 U
B-BHC	ug/kg	2.0 U	2.0 U	2.0 U	1.9 U

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Analysis/ Analyte	Units	108-__	109-__	110-__	111-__
D-BHC	ug/kg	2.0 U	2.0 U	2.0 U	1.9 U
G-BHC	ug/kg	2.0 U	2.0 U	2.0 U	1.9 U
cis-Chlordane	ug/kg	2.0 U	2.0 U	2.0 U	1.9 U
trans-Chlordane	ug/kg	2.0 U	2.0 U	2.0 U	1.9 U
p,p'-DDD	ug/kg	4.0 U	3.8 U	4.0 U	3.6 U
p,p'-DDE	ug/kg	4.0 U	6.8	4.0 U	3.6 U
p,p'-DDT	ug/kg	4.0 U	3.8 U	4.0 U	3.6 U
Dieldrin	ug/kg	4.0 U	6.1	4.0 U	3.6 U
Endosulfan I	ug/kg	2.0 U	2.0 U	2.0 U	1.9 U
Endosulfan II	ug/kg	4.0 U	3.8 U	4.0 U	3.6 U
Endosulfan Sulfate	ug/kg	4.0 U	3.8 U	4.0 U	3.6 U
Endrin	ug/kg	4.0 U	3.8 U	4.0 U	3.6 U
Endrin Aldehyde	ug/kg	4.0 U	3.8 U	4.0 U	3.6 U
Endrin Ketone	ug/kg	4.0 U	3.8 U	4.0 U	3.6 U
Heptachlor	ug/kg	2.0 U	2.0 U	2.0 U	1.9 U
Heptachlor Epoxide	ug/kg	2.0 U	2.0 U	2.0 U	1.9 U
p,p'-Methoxychlor	ug/kg	20 U	20 U	20 U	19 U
Toxaphene	ug/kg	200 U	200 U	200 U	190 U
1 Semi-Volatile Organic Compounds in Soil					
Acenaphthene	ug/kg	200 U	190 U	200 U	190 U
Acenaphthylene	ug/kg	200 U	190 U	200 U	190 U
Acetophenone	ug/kg	380 U	370 U	390 U	360 U
Anthracene	ug/kg	200 U	190 U	200 U	190 U
Atrazine	ug/kg	380 U	370 U	390 U	360 U
Benzaldehyde	ug/kg	380 U	370 U	390 U	360 U
Benzo(a)anthracene	ug/kg	200 U	190 U	200 U	190 U
Benzo(a)pyrene	ug/kg	200 U	190 U	200 U	190 U
Benzo(b)fluoranthene	ug/kg	200 U	190 U	200 U	190 U
Benzo(g,h,i)perylene	ug/kg	200 U	190 U	200 U	190 U
Benzo(k)fluoranthene	ug/kg	200 U	190 U	200 U	190 U
Biphenyl	ug/kg	200 U	190 U	200 U	190 U
bis(2-Chloroethoxy)methane	ug/kg	200 U	190 U	200 U	190 U
bis(2-Chloroethyl)ether	ug/kg	380 U	370 U	390 U	360 U
bis(2-Ethylhexyl)phthalate	ug/kg	200 U	1900	200 U	190 U
4-Bromophenyl-phenylether	ug/kg	200 U	190 U	200 U	190 U
Butylbenzylphthalate	ug/kg	200 U	190 U	200 U	190 U
Caprolactam	ug/kg	380 U	370 U	390 U	360 U
Carbazole	ug/kg	380 U	370 U	390 U	360 U
4-Chloro-3-methylphenol	ug/kg	200 U	190 U	200 U	190 U
4-Chloroaniline	ug/kg	380 U	370 U	390 U	360 U
2-Chloronaphthalene	ug/kg	200 U	190 U	200 U	190 U
2-Chlorophenol	ug/kg	200 U	190 U	200 U	190 U
4-Chlorophenyl-phenylether	ug/kg	200 U	190 U	200 U	190 U
Chrysene	ug/kg	200 U	190 U	200 U	190 U
Di-n-butylphthalate	ug/kg	200 U	190 U	200 U	190 U

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Analysis/ Analyte	Units	108-__	109-__	110-__	111-__
Di-n-octylphthalate	ug/kg	380 U	370 U	390 U	360 U
Dibenz(a,h)anthracene	ug/kg	200 U	190 U	200 U	190 U
Dibenzofuran	ug/kg	200 U	190 U	200 U	190 U
3,3'-Dichlorobenzidine	ug/kg	380 U	370 U	390 U	360 U
2,4-Dichlorophenol	ug/kg	200 U	190 U	200 U	190 U
Diethylphthalate	ug/kg	200 U	190 U	200 U	190 U
2,4-Dimethylphenol	ug/kg	200 U	190 U	200 U	190 U
Dimethylphthalate	ug/kg	200 U	190 U	200 U	190 U
4,6-Dinitro-2-methylphenol	ug/kg	380 U	370 U	390 U	360 U
2,4-Dinitrophenol	ug/kg	380 U	370 U	390 U	360 U
2,4-Dinitrotoluene	ug/kg	200 U	190 U	200 U	190 U
2,6-Dinitrotoluene	ug/kg	200 U	190 U	200 U	190 U
Fluoranthene	ug/kg	380 U	370 U	390 U	360 U
Fluorene	ug/kg	200 U	190 U	200 U	190 U
Hexachlorobenzene	ug/kg	200 U	190 U	200 U	190 U
Hexachlorobutadiene	ug/kg	200 U	190 U	200 U	190 U
Hexachlorocyclopentadiene	ug/kg	380 U	370 U	390 U	360 U
Hexachloroethane	ug/kg	200 U	190 U	200 U	190 U
Indeno(1,2,3-cd)pyrene	ug/kg	200 U	190 U	200 U	190 U
Isophorone	ug/kg	200 U	190 U	200 U	190 U
2-Methylnaphthalene	ug/kg	200 U	190 U	200 U	190 U
2-Methylphenol	ug/kg	380 U	370 U	390 U	360 U
4-Methylphenol	ug/kg	380 U	370 U	390 U	360 U
Naphthalene	ug/kg	200 U	190 U	200 U	190 U
2-Nitroaniline	ug/kg	200 U	190 U	200 U	190 U
3-Nitroaniline	ug/kg	380 U	370 U	390 U	360 U
4-Nitroaniline	ug/kg	380 U	370 U	390 U	360 U
Nitrobenzene	ug/kg	200 U	190 U	200 U	190 U
2-Nitrophenol	ug/kg	200 U	190 U	200 U	190 U
4-Nitrophenol	ug/kg	380 U	370 U	390 U	360 U
N-nitroso-di-n-propylamine	ug/kg	200 U	190 U	200 U	190 U
N-nitrosodiphenylamine	ug/kg	200 U	190 U	200 U	190 U
Pentachlorophenol	ug/kg	380 U	370 U	390 U	360 U
Phenanthrene	ug/kg	200 U	190 U	200 U	190 U
Phenol	ug/kg	380 U	370 U	390 U	360 U
Pyrene	ug/kg	200 U	190 U	200 U	190 U
1,2,4,5-Tetrachlorobenzene	ug/kg	200 U	190 U	200 U	190 U
2,4,5-Trichlorophenol	ug/kg	200 U	190 U	200 U	190 U
2,4,6-Trichlorophenol	ug/kg	200 U	190 U	200 U	190 U
1 Semi-Volatile TPH (DRO & ORO) in Soil by GC/FID					
TPH DRO	mg/kg	9.91 U	9.42 U	9.94 U	9.12 U
TPH ORO	mg/kg	79.4 U	75.4 U	79.6 U	73 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	23	87	1900	83
Benzene	ug/kg	5.7 U	5.8 U	290 U	5.5 U

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Analysis/ Analyte	Units	108-__	109-__	110-__	111-__
Bromochloromethane	ug/kg	5.7 U	5.8 U	290 U	5.5 U
Bromodichloromethane	ug/kg	5.7 U	5.8 U	290 U	5.5 U
Bromoform	ug/kg	5.7 U	5.8 U	290 U	5.5 U
Bromomethane	ug/kg	5.7 U	5.8 U	290 U	5.5 U
2-Butanone	ug/kg	11 U	23	570 U	14
Carbon Disulfide	ug/kg	5.7 U	5.8 U	290 U	5.5 U
Carbon Tetrachloride	ug/kg	5.7 U	5.8 U	290 U	5.5 U
Chlorobenzene	ug/kg	5.7 U	5.8 U	290 U	5.5 U
Chloroethane	ug/kg	5.7 U	5.8 U	290 U	5.5 U
Chloroform	ug/kg	5.7 U	5.8 U	290 U	5.5 U
Chloromethane	ug/kg	5.7 U	5.8 U	290 U	5.5 U
Cyclohexane	ug/kg	5.7 U	5.8 U	290 U	5.5 U
1,2-Dibromo-3-Chloropropane	ug/kg	5.7 U	5.8 U	290 U	5.5 U
Dibromochloromethane	ug/kg	5.7 U	5.8 U	290 U	5.5 U
1,2-Dibromoethane	ug/kg	5.7 U	5.8 U	290 U	5.5 U
1,2-Dichlorobenzene	ug/kg	5.7 U	5.8 U	290 U	5.5 U
1,3-Dichlorobenzene	ug/kg	5.7 U	5.8 U	290 U	5.5 U
1,4-Dichlorobenzene	ug/kg	5.7 U	5.8 U	290 U	5.5 U
Dichlorodifluoromethane	ug/kg	5.7 U	5.8 U	290 U	5.5 U
1,1-Dichloroethane	ug/kg	5.7 U	5.8 U	290 U	5.5 U
1,2-Dichloroethane	ug/kg	5.7 U	5.8 U	290 U	5.5 U
1,1-Dichloroethene	ug/kg	5.7 UJ	5.8 UJ	290 UJ	5.5 UJ
cis-1,2-Dichloroethene	ug/kg	5.7 U	5.8 U	290 U	5.5 U
trans-1,2-Dichloroethene	ug/kg	5.7 U	5.8 U	290 U	5.5 U
1,2-Dichloropropane	ug/kg	5.7 U	5.8 U	290 U	5.5 U
cis-1,3-Dichloropropene	ug/kg	5.7 U	5.8 U	290 U	5.5 U
trans-1,3-Dichloropropene	ug/kg	5.7 U	5.8 U	290 U	5.5 U
Ethyl Benzene	ug/kg	5.7 U	5.8 U	290 U	5.5 U
2-Hexanone	ug/kg	11 U	12 U	570 U	11 U
Isopropylbenzene	ug/kg	5.7 U	5.8 U	290 U	5.5 U
Methyl Acetate	ug/kg	5.7 U	5.8 U	290 U	5.5 U
Methyl tert-butyl ether	ug/kg	5.7 U	5.8 U	290 U	5.5 U
Methylcyclohexane	ug/kg	5.7 U	5.8 U	290 U	5.5 U
Methylene Chloride	ug/kg	5.7 U	5.8 U	290 U	5.5 U
4-Methyl-2-Pentanone	ug/kg	11 U	12 U	570 U	11 U
Styrene	ug/kg	5.7 U	5.8 U	290 U	5.5 U
1,1,2,2-Tetrachloroethane	ug/kg	5.7 U	5.8 U	290 U	5.5 U
Tetrachloroethene	ug/kg	5.7 U	26	290 U	5.5 U
Toluene	ug/kg	5.7 U	5.8 U	290 U	5.5 U
1,2,3-Trichlorobenzene	ug/kg	5.7 U	5.8 U	290 U	5.5 U
1,2,4-Trichlorobenzene	ug/kg	5.7 U	5.8 U	290 U	5.5 U
1,1,1-Trichloroethane	ug/kg	5.7 U	65	320	5.5 U
1,1,2-Trichloroethane	ug/kg	5.7 U	5.8 U	290 U	5.5 U
Trichloroethene	ug/kg	5.7 U	100	2200	5.5 U
Trichlorofluoromethane	ug/kg	5.7 U	5.8 U	290 U	5.5 U

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1,1,2-Trichlorotrifluoroethane	ug/kg	5.7 U	5.8 U	290 U	5.5 U
Vinyl Chloride	ug/kg	5.7 U	5.8 U	290 U	5.5 U
m and/or p-Xylene	ug/kg	5.7 U	5.8 U	290 U	5.5 U
o-Xylene	ug/kg	5.7 U	5.8 U	290 U	5.5 U
1 Volatile TPH in Soil by GC/MS					
TPH GRO	mg/kg	2.68 U	2.72 U	2.23 U	2.23 U

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Analysis/ Analyte	Units	112-__	113-__	114-__	114-FD
1 Herbicides in Soil by GC/EC					
2,4,5-T	ug/kg	12 U	14 U	14 U	14 U
2,4,5-TP	ug/kg	12 U	14 U	14 U	14 U
2,4-D	ug/kg	24 U	29 U	29 U	29 U
Dicamba	ug/kg	12 U	14 U	14 U	14 U
Pentachlorophenol	ug/kg	4.7 U	5.8 U	5.7 U	5.7 U
1 Mercury in Soil or Sediment					
Mercury	mg/kg	0.12 U	0.12 U	0.14 U	0.13 U
1 Metals in Solids by ICP-AES					
Aluminum	mg/kg	8900	8730	4550	5000
Antimony	mg/kg	6.3 U	7.7 U	6.8 U	7.2 U
Arsenic	mg/kg	5.6	7.1	10.8	9.2
Barium	mg/kg	87.2	145	107	123
Beryllium	mg/kg	0.65	0.64 U	0.56 U	0.60 U
Cadmium	mg/kg	0.52 U	0.64 U	0.56 U	0.60 U
Calcium	mg/kg	13700	23800	56900	27600
Chromium	mg/kg	15.8	15.7	10.9	11.4
Cobalt	mg/kg	12.1	7.9	9.6	9.5
Copper	mg/kg	15.1	18.4	13.2	13.7
Iron	mg/kg	13700	17400	18800	17200
Lead	mg/kg	10.5	14.6	19.1	19.3
Magnesium	mg/kg	8000	6090	29600	8770
Manganese	mg/kg	584	552	851	530
Nickel	mg/kg	16.7	17.7	14.8	15.8
Potassium	mg/kg	524 U	785	563 U	601 U
Selenium	mg/kg	3.7 U	4.5 U	3.9 U	4.2 U
Silver	mg/kg	1.0 UJ	1.3 UJ	1.1 UJ	1.2 UJ
Sodium	mg/kg	524 U	639 U	563 U	601 U
Thallium	mg/kg	2.6 UJ	3.2 UJ	2.9 J	3.0 UJ
Vanadium	mg/kg	24.7	26.1	23.3	25.1
Zinc	mg/kg	30.6	61.1	32.6	37.1
1 Percent Solid					
Solids, percent	%	82.0	69.1	69.0	68.1
1 Pesticides in Soil by GC/EC					
Aldrin	ug/kg	2.1 U	2.4 U	2.2 U	2.5 U
Aroclor 1016	ug/kg	41 U	47 U	43 U	47 U
Aroclor 1221	ug/kg	41 U	47 U	43 U	47 U
Aroclor 1232	ug/kg	41 U	47 U	43 U	47 U
Aroclor 1242	ug/kg	41 U	47 U	43 U	47 U
Aroclor 1248	ug/kg	41 U	47 U	43 U	47 U
Aroclor 1254	ug/kg	41 U	47 U	43 U	47 U
Aroclor 1260	ug/kg	41 U	47 U	43 U	47 U
Aroclor 1262	ug/kg	41 U	47 U	43 U	47 U
Aroclor 1268	ug/kg	41 U	47 U	43 U	47 U
A-BHC	ug/kg	2.1 U	2.4 U	2.2 U	2.5 U
B-BHC	ug/kg	2.1 U	2.4 U	2.2 U	2.5 U

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D-BHC	ug/kg	2.1 U	2.4 U	2.2 U	2.5 U
G-BHC	ug/kg	2.1 U	2.4 U	2.2 U	2.5 U
cis-Chlordane	ug/kg	2.1 U	2.4 U	2.2 U	2.5 U
trans-Chlordane	ug/kg	2.1 U	2.4 U	2.2 U	2.5 U
p,p'-DDD	ug/kg	4.0 U	4.7 U	4.2 U	4.8 U
p,p'-DDE	ug/kg	4.0 U	4.7 U	4.2 U	4.8 U
p,p'-DDT	ug/kg	4.0 U	4.7 U	4.2 U	4.8 U
Dieldrin	ug/kg	4.0 U	4.7 U	4.2 U	4.8 U
Endosulfan I	ug/kg	2.1 U	2.4 U	2.2 U	2.5 U
Endosulfan II	ug/kg	4.0 U	4.7 U	4.2 U	4.8 U
Endosulfan Sulfate	ug/kg	4.0 U	4.7 U	4.2 U	4.8 U
Endrin	ug/kg	4.0 U	4.7 U	4.2 U	4.8 U
Endrin Aldehyde	ug/kg	4.0 U	4.7 U	4.2 U	4.8 U
Endrin Ketone	ug/kg	4.0 U	4.7 U	4.2 U	4.8 U
Heptachlor	ug/kg	2.1 U	2.4 U	2.2 U	2.5 U
Heptachlor Epoxide	ug/kg	2.1 U	2.4 U	2.2 U	2.5 U
p,p'-Methoxychlor	ug/kg	21 U	24 U	22 U	25 U
Toxaphene	ug/kg	210 U	240 U	220 U	250 U
1 Semi-Volatile Organic Compounds in Soil					
Acenaphthene	ug/kg	210 U	260 U	230 U	250 U
Acenaphthylene	ug/kg	210 U	260 U	230 U	250 U
Acetophenone	ug/kg	410 U	500 UJ	440 UJ	480 UJ
Anthracene	ug/kg	210 U	260 U	230 U	250 U
Atrazine	ug/kg	410 U	500 U	440 U	480 U
Benzaldehyde	ug/kg	410 U	500 U	440 U	480 U
Benzo(a)anthracene	ug/kg	210 U	260 U	230 U	250 U
Benzo(a)pyrene	ug/kg	210 U	260 U	230 U	250 U
Benzo(b)fluoranthene	ug/kg	210 U	260 U	230 U	300
Benzo(g,h,i)perylene	ug/kg	210 U	260 U	230 U	250 U
Benzo(k)fluoranthene	ug/kg	210 U	260 U	230 U	250 U
Biphenyl	ug/kg	210 U	260 U	230 U	250 U
bis(2-Chloroethoxy)methane	ug/kg	210 U	260 U	230 U	250 U
bis(2-Chloroethyl)ether	ug/kg	410 U	500 U	440 U	480 U
bis(2-Ethylhexyl)phthalate	ug/kg	210 U	260 U	230 U	250 U
4-Bromophenyl-phenylether	ug/kg	210 U	260 U	230 U	250 U
Butylbenzylphthalate	ug/kg	210 U	260 U	230 U	250 U
Caprolactam	ug/kg	410 U	500 UJ	440 UJ	480 UJ
Carbazole	ug/kg	410 U	500 U	440 U	480 U
4-Chloro-3-methylphenol	ug/kg	210 U	260 U	230 U	250 U
4-Chloroaniline	ug/kg	410 U	500 U	440 U	480 U
2-Chloronaphthalene	ug/kg	210 U	260 U	230 U	250 U
2-Chlorophenol	ug/kg	210 U	260 U	230 U	250 U
4-Chlorophenyl-phenylether	ug/kg	210 U	260 U	230 U	250 U
Chrysene	ug/kg	210 U	260 U	230 U	250 U
Di-n-butylphthalate	ug/kg	210 U	260 U	230 U	250 U

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Analysis/ Analyte	Units	112-__	113-__	114-__	114-FD
Di-n-octylphthalate	ug/kg	410 U	500 U	440 U	480 U
Dibenz(a,h)anthracene	ug/kg	210 U	260 U	230 U	250 U
Dibenzofuran	ug/kg	210 U	260 U	230 U	250 U
3,3'-Dichlorobenzidine	ug/kg	410 U	500 U	440 U	480 U
2,4-Dichlorophenol	ug/kg	210 U	260 U	230 U	250 U
Diethylphthalate	ug/kg	210 U	260 U	230 U	250 U
2,4-Dimethylphenol	ug/kg	210 U	260 U	230 U	250 U
Dimethylphthalate	ug/kg	210 U	260 U	230 U	250 U
4,6-Dinitro-2-methylphenol	ug/kg	410 U	500 U	440 U	480 U
2,4-Dinitrophenol	ug/kg	410 U	500 U	440 U	480 U
2,4-Dinitrotoluene	ug/kg	210 U	260 U	230 U	250 U
2,6-Dinitrotoluene	ug/kg	210 U	260 U	230 U	250 U
Fluoranthene	ug/kg	410 U	500 U	440 U	480 U
Fluorene	ug/kg	210 U	260 U	230 U	250 U
Hexachlorobenzene	ug/kg	210 U	260 U	230 U	250 U
Hexachlorobutadiene	ug/kg	210 U	260 U	230 U	250 U
Hexachlorocyclopentadiene	ug/kg	410 U	500 U	440 U	480 U
Hexachloroethane	ug/kg	210 U	260 U	230 U	250 U
Indeno(1,2,3-cd)pyrene	ug/kg	210 U	260 U	230 U	250 U
Isophorone	ug/kg	210 U	260 U	230 U	250 U
2-Methylnaphthalene	ug/kg	210 U	260 U	230 U	250 U
2-Methylphenol	ug/kg	410 U	500 U	440 U	480 U
4-Methylphenol	ug/kg	410 U	500 U	440 U	480 U
Naphthalene	ug/kg	210 U	260 U	230 U	250 U
2-Nitroaniline	ug/kg	210 U	260 U	230 U	250 U
3-Nitroaniline	ug/kg	410 U	500 U	440 U	480 U
4-Nitroaniline	ug/kg	410 U	500 U	440 U	480 U
Nitrobenzene	ug/kg	210 U	260 U	230 U	250 U
2-Nitrophenol	ug/kg	210 U	260 U	230 U	250 U
4-Nitrophenol	ug/kg	410 U	500 U	440 U	480 U
N-nitroso-di-n-propylamine	ug/kg	210 U	260 U	230 U	250 U
N-nitrosodiphenylamine	ug/kg	210 U	260 U	230 U	250 U
Pentachlorophenol	ug/kg	410 U	500 U	440 U	480 U
Phenanthrene	ug/kg	210 U	260 U	230 U	250 U
Phenol	ug/kg	410 U	500 U	440 U	480 U
Pyrene	ug/kg	210 U	260 U	230 U	420
1,2,4,5-Tetrachlorobenzene	ug/kg	210 U	260 U	230 U	250 U
2,4,5-Trichlorophenol	ug/kg	210 U	260 U	230 U	250 U
2,4,6-Trichlorophenol	ug/kg	210 U	260 U	230 U	250 U
1 Semi-Volatile TPH (DRO & ORO) in Soil by GC/FID					
TPH DRO	mg/kg	10.2 U	11.9 U	11.5 U	
TPH ORO	mg/kg	81.7 U	95.6 U	92 U	
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	1400	86	58	170 J
Benzene	ug/kg	330 U	8.6 U	6.5 U	17 U

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Analysis/ Analyte	Units	112-__	113-__	114-__	114-FD
Bromochloromethane	ug/kg	330 U	8.6 U	6.5 U	17 U
Bromodichloromethane	ug/kg	330 U	8.6 U	6.5 U	17 U
Bromoform	ug/kg	330 U	8.6 U	6.5 U	17 U
Bromomethane	ug/kg	330 U	8.6 U	6.5 U	17 U
2-Butanone	ug/kg	660 U	17	13 U	33 U
Carbon Disulfide	ug/kg	330 U	8.6 U	57	81
Carbon Tetrachloride	ug/kg	330 U	8.6 U	6.5 U	17 U
Chlorobenzene	ug/kg	330 U	8.6 U	6.5 U	17 U
Chloroethane	ug/kg	330 U	8.6 U	6.5 U	17 U
Chloroform	ug/kg	330 U	8.6 U	6.5 U	17 U
Chloromethane	ug/kg	330 U	8.6 U	6.5 U	17 U
Cyclohexane	ug/kg	330 U	8.6 U	6.5 U	17 U
1,2-Dibromo-3-Chloropropane	ug/kg	330 U	8.6 U	6.5 U	17 U
Dibromochloromethane	ug/kg	330 U	8.6 U	6.5 U	17 U
1,2-Dibromoethane	ug/kg	330 U	8.6 U	6.5 U	17 U
1,2-Dichlorobenzene	ug/kg	330 U	8.6 U	6.5 U	17 U
1,3-Dichlorobenzene	ug/kg	330 U	8.6 U	6.5 U	17 U
1,4-Dichlorobenzene	ug/kg	330 U	8.6 U	6.5 U	17 U
Dichlorodifluoromethane	ug/kg	330 U	8.6 U	6.5 U	17 U
1,1-Dichloroethane	ug/kg	330 U	8.6 U	6.5 U	17 U
1,2-Dichloroethane	ug/kg	330 U	8.6 U	6.5 U	17 U
1,1-Dichloroethene	ug/kg	330 UJ	8.6 UJ	6.5 UJ	17 UJ
cis-1,2-Dichloroethene	ug/kg	330 U	8.6 U	6.5 U	17 U
trans-1,2-Dichloroethene	ug/kg	330 U	8.6 U	6.5 U	17 U
1,2-Dichloropropane	ug/kg	330 U	8.6 U	6.5 U	17 U
cis-1,3-Dichloropropene	ug/kg	330 U	8.6 U	6.5 U	17 U
trans-1,3-Dichloropropene	ug/kg	330 U	8.6 U	6.5 U	17 U
Ethyl Benzene	ug/kg	330 U	8.6 U	6.5 U	17 U
2-Hexanone	ug/kg	660 U	17 U	13 U	33 U
Isopropylbenzene	ug/kg	330 U	8.6 U	6.5 U	17 U
Methyl Acetate	ug/kg	330 U	8.6 U	6.5 U	17 U
Methyl tert-butyl ether	ug/kg	330 U	8.6 U	6.5 U	17 U
Methylcyclohexane	ug/kg	330 U	8.6 U	6.5 U	17 U
Methylene Chloride	ug/kg	330 U	8.6 U	6.5 U	17 U
4-Methyl-2-Pentanone	ug/kg	660 U	17 U	13 U	33 U
Styrene	ug/kg	330 U	8.6 U	6.5 U	17 U
1,1,2,2-Tetrachloroethane	ug/kg	330 U	8.6 U	6.5 U	17 U
Tetrachloroethene	ug/kg	330 U	8.6 U	6.5 U	17 U
Toluene	ug/kg	330 U	8.6 U	6.5 U	17 U
1,2,3-Trichlorobenzene	ug/kg	330 U	8.6 U	6.5 U	17 U
1,2,4-Trichlorobenzene	ug/kg	330 U	8.6 U	6.5 U	17 U
1,1,1-Trichloroethane	ug/kg	380	8.6 U	6.5 U	17 U
1,1,2-Trichloroethane	ug/kg	330 U	8.6 U	6.5 U	17 U
Trichloroethene	ug/kg	460	8.6 U	6.5 U	17 U
Trichlorofluoromethane	ug/kg	330 U	8.6 U	6.5 U	17 U

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Analysis/ Analyte	Units	112-__	113-__	114-__	114-FD
1,1,2-Trichlorotrifluoroethane	ug/kg	330 U	8.6 U	6.5 U	17 U
Vinyl Chloride	ug/kg	330 U	8.6 U	6.5 U	17 U
m and/or p-Xylene	ug/kg	330 U	8.6 U	6.5 U	17 U
o-Xylene	ug/kg	330 U	8.6 U	6.5 U	17 U
1 Volatile TPH in Soil by GC/MS					
TPH GRO	mg/kg	2.22 U	3.01 U	2.6 U	

Analysis/ Analyte	Units	115-__	116-__	201-__	202-__
1 Herbicides in Soil by GC/EC					
2,4,5-T	ug/kg	15 U	13 U		
2,4,5-TP	ug/kg	15 U	13 U		
2,4-D	ug/kg	30 U	27 U		
Dicamba	ug/kg	15 U	13 U		
Pentachlorophenol	ug/kg	5.9 U	5.4 U		
1 Mercury in Soil or Sediment					
Mercury	mg/kg	0.15 U	0.14 U		
1 Metals in Solids by ICP-AES					
Aluminum	mg/kg	7680	6080		
Antimony	mg/kg	8.5 UJ	6.9 U		
Arsenic	mg/kg	9.0	7.0		
Barium	mg/kg	128	103		
Beryllium	mg/kg	0.71 U	0.57 U		
Cadmium	mg/kg	0.71 U	0.57 U		
Calcium	mg/kg	21700	10700		
Chromium	mg/kg	13.7	11.8		
Cobalt	mg/kg	7.1 UJ	9.2		
Copper	mg/kg	17.1	13.6		
Iron	mg/kg	16300	13900		
Lead	mg/kg	14.1 J	15.7		
Magnesium	mg/kg	10300	4880		
Manganese	mg/kg	599	688		
Nickel	mg/kg	15.9	14.8		
Potassium	mg/kg	1110	579		
Selenium	mg/kg	5.0 U	4.0 U		
Silver	mg/kg	1.4 UJ	1.1 UJ		
Sodium	mg/kg	711 U	573 U		
Thallium	mg/kg	3.6 UJ	2.9 UJ		
Vanadium	mg/kg	24.2	22.4		
Zinc	mg/kg	56.6	47.0		
1 Percent Solid					
Solids, percent	%	65.8	73.9		
1 Pesticides in Soil by GC/EC					
Aldrin	ug/kg	2.5 U	2.4 U		
Aroclor 1016	ug/kg	48 U	47 U		
Aroclor 1221	ug/kg	48 U	47 U		
Aroclor 1232	ug/kg	48 U	47 U		
Aroclor 1242	ug/kg	48 U	47 U		
Aroclor 1248	ug/kg	48 U	47 U		
Aroclor 1254	ug/kg	48 U	47 U		
Aroclor 1260	ug/kg	48 U	47 U		
Aroclor 1262	ug/kg	48 U	47 U		
Aroclor 1268	ug/kg	48 U	47 U		
A-BHC	ug/kg	2.5 U	2.4 U		
B-BHC	ug/kg	2.5 U	2.4 U		

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D-BHC	ug/kg	2.5 U	2.4 U		
G-BHC	ug/kg	2.5 U	2.4 U		
cis-Chlordane	ug/kg	2.5 U	2.4 U		
trans-Chlordane	ug/kg	2.5 U	2.4 U		
p,p'-DDD	ug/kg	4.9 U	4.7 U		
p,p'-DDE	ug/kg	4.9 U	4.7 U		
p,p'-DDT	ug/kg	4.9 U	4.7 U		
Dieldrin	ug/kg	4.9 U	4.7 U		
Endosulfan I	ug/kg	2.5 U	2.4 U		
Endosulfan II	ug/kg	4.9 U	4.7 U		
Endosulfan Sulfate	ug/kg	4.9 U	4.7 U		
Endrin	ug/kg	4.9 U	4.7 U		
Endrin Aldehyde	ug/kg	4.9 U	4.7 U		
Endrin Ketone	ug/kg	4.9 U	4.7 U		
Heptachlor	ug/kg	2.5 U	2.4 U		
Heptachlor Epoxide	ug/kg	2.5 U	2.4 U		
p,p'-Methoxychlor	ug/kg	25 U	24 U		
Toxaphene	ug/kg	250 U	240 U		
1 Semi-Volatile Organic Compounds in Soil					
Acenaphthene	ug/kg	260 U	230 U		
Acenaphthylene	ug/kg	260 U	230 U		
Acetophenone	ug/kg	500 UJ	450 U		
Anthracene	ug/kg	260 U	230 U		
Atrazine	ug/kg	500 U	450 U		
Benzaldehyde	ug/kg	500 U	450 U		
Benzo(a)anthracene	ug/kg	260 U	230 U		
Benzo(a)pyrene	ug/kg	260 U	230 U		
Benzo(b)fluoranthene	ug/kg	260 U	310		
Benzo(g,h,i)perylene	ug/kg	260 U	230 U		
Benzo(k)fluoranthene	ug/kg	260 U	230 U		
Biphenyl	ug/kg	260 U	230 U		
bis(2-Chloroethoxy)methane	ug/kg	260 U	230 U		
bis(2-Chloroethyl)ether	ug/kg	500 U	450 U		
bis(2-Ethylhexyl)phthalate	ug/kg	260 U	230 U		
4-Bromophenyl-phenylether	ug/kg	260 U	230 U		
Butylbenzylphthalate	ug/kg	260 U	230 U		
Caprolactam	ug/kg	500 UJ	450 U		
Carbazole	ug/kg	500 U	450 U		
4-Chloro-3-methylphenol	ug/kg	260 U	230 U		
4-Chloroaniline	ug/kg	500 U	450 U		
2-Chloronaphthalene	ug/kg	260 U	230 U		
2-Chlorophenol	ug/kg	260 U	230 U		
4-Chlorophenyl-phenylether	ug/kg	260 U	230 U		
Chrysene	ug/kg	260 U	230		
Di-n-butylphthalate	ug/kg	260 U	230 U		

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Analysis/ Analyte	Units	115-__	116-__	201-__	202-__
Di-n-octylphthalate	ug/kg	500 U	450 U		
Dibenz(a,h)anthracene	ug/kg	260 U	230 U		
Dibenzofuran	ug/kg	260 U	230 U		
3,3'-Dichlorobenzidine	ug/kg	500 U	450 U		
2,4-Dichlorophenol	ug/kg	260 U	230 U		
Diethylphthalate	ug/kg	260 U	230 U		
2,4-Dimethylphenol	ug/kg	260 U	230 U		
Dimethylphthalate	ug/kg	260 U	230 U		
4,6-Dinitro-2-methylphenol	ug/kg	500 U	450 U		
2,4-Dinitrophenol	ug/kg	500 U	450 U		
2,4-Dinitrotoluene	ug/kg	260 U	230 U		
2,6-Dinitrotoluene	ug/kg	260 U	230 U		
Fluoranthene	ug/kg	500 U	450 U		
Fluorene	ug/kg	260 U	230 U		
Hexachlorobenzene	ug/kg	260 U	230 U		
Hexachlorobutadiene	ug/kg	260 U	230 U		
Hexachlorocyclopentadiene	ug/kg	500 U	450 U		
Hexachloroethane	ug/kg	260 U	230 U		
Indeno(1,2,3-cd)pyrene	ug/kg	260 U	230 U		
Isophorone	ug/kg	260 U	230 U		
2-Methylnaphthalene	ug/kg	260 U	230 U		
2-Methylphenol	ug/kg	500 U	450 U		
4-Methylphenol	ug/kg	500 U	450 U		
Naphthalene	ug/kg	260 U	230 U		
2-Nitroaniline	ug/kg	260 U	230 U		
3-Nitroaniline	ug/kg	500 U	450 U		
4-Nitroaniline	ug/kg	500 U	450 U		
Nitrobenzene	ug/kg	260 U	230 U		
2-Nitrophenol	ug/kg	260 U	230 U		
4-Nitrophenol	ug/kg	500 U	450 U		
N-nitroso-di-n-propylamine	ug/kg	260 U	230 U		
N-nitrosodiphenylamine	ug/kg	260 U	230 U		
Pentachlorophenol	ug/kg	500 U	450 U		
Phenanthrene	ug/kg	260 U	230 U		
Phenol	ug/kg	500 U	450 U		
Pyrene	ug/kg	260 U	350		
1,2,4,5-Tetrachlorobenzene	ug/kg	260 U	230 U		
2,4,5-Trichlorophenol	ug/kg	260 U	230 U		
2,4,6-Trichlorophenol	ug/kg	260 U	230 U		
1 Semi-Volatile TPH (DRO & ORO) in Soil by GC/FID					
TPH DRO	mg/kg	12.6 U	11.7 U		
TPH ORO	mg/kg	101 U	93.6 U		
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	180	130		
Benzene	ug/kg	12 U	8.9 U		

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Analysis/ Analyte	Units	115-__	116-__	201-__	202-__
Bromochloromethane	ug/kg	12 U	8.9 U		
Bromodichloromethane	ug/kg	12 U	8.9 U		
Bromoform	ug/kg	12 U	8.9 UJ		
Bromomethane	ug/kg	12 U	8.9 U		
2-Butanone	ug/kg	27	18 U		
Carbon Disulfide	ug/kg	12 U	15		
Carbon Tetrachloride	ug/kg	12 U	8.9 U		
Chlorobenzene	ug/kg	12 U	8.9 U		
Chloroethane	ug/kg	12 U	8.9 U		
Chloroform	ug/kg	12 U	8.9 U		
Chloromethane	ug/kg	12 U	8.9 U		
Cyclohexane	ug/kg	12 U	8.9 U		
1,2-Dibromo-3-Chloropropane	ug/kg	12 U	8.9 UJ		
Dibromochloromethane	ug/kg	12 U	8.9 U		
1,2-Dibromoethane	ug/kg	12 U	8.9 U		
1,2-Dichlorobenzene	ug/kg	12 U	8.9 UJ		
1,3-Dichlorobenzene	ug/kg	12 U	8.9 UJ		
1,4-Dichlorobenzene	ug/kg	12 U	8.9 UJ		
Dichlorodifluoromethane	ug/kg	12 U	8.9 U		
1,1-Dichloroethane	ug/kg	12 U	8.9 U		
1,2-Dichloroethane	ug/kg	12 U	8.9 U		
1,1-Dichloroethene	ug/kg	12 UJ	8.9 UJ		
cis-1,2-Dichloroethene	ug/kg	12 U	8.9 U		
trans-1,2-Dichloroethene	ug/kg	12 U	8.9 U		
1,2-Dichloropropane	ug/kg	12 U	8.9 U		
cis-1,3-Dichloropropene	ug/kg	12 U	8.9 U		
trans-1,3-Dichloropropene	ug/kg	12 U	8.9 U		
Ethyl Benzene	ug/kg	12 U	8.9 U		
2-Hexanone	ug/kg	25 U	18 U		
Isopropylbenzene	ug/kg	12 U	8.9 U		
Methyl Acetate	ug/kg	12 U	8.9 U		
Methyl tert-butyl ether	ug/kg	12 U	8.9 U		
Methylcyclohexane	ug/kg	12 U	8.9 U		
Methylene Chloride	ug/kg	12 U	8.9 U		
4-Methyl-2-Pentanone	ug/kg	25 U	18 U		
Styrene	ug/kg	12 U	8.9 U		
1,1,2,2-Tetrachloroethane	ug/kg	12 U	8.9 U		
Tetrachloroethene	ug/kg	12 U	8.9 U		
Toluene	ug/kg	14	8.9 U		
1,2,3-Trichlorobenzene	ug/kg	12 U	8.9 UJ		
1,2,4-Trichlorobenzene	ug/kg	12 U	8.9 UJ		
1,1,1-Trichloroethane	ug/kg	12 U	8.9 U		
1,1,2-Trichloroethane	ug/kg	12 U	8.9 U		
Trichloroethene	ug/kg	12 U	8.9 U		
Trichlorofluoromethane	ug/kg	12 U	8.9 U		

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Analysis/ Analyte	Units	115-__	116-__	201-__	202-__
1,1,2-Trichlorotrifluoroethane	ug/kg	12 U	8.9 U		
Vinyl Chloride	ug/kg	12 U	8.9 U		
m and/or p-Xylene	ug/kg	12 U	8.9 U		
o-Xylene	ug/kg	12 U	8.9 U		
1 Volatile TPH in Soil by GC/MS					
TPH GRO	mg/kg	3.89 U	3.01 U		
1 Herbicides in Water by GC/EC					
2,4,5-T	ug/L			0.050 U	0.050 U
2,4,5-TP	ug/L			0.050 U	0.050 U
2,4-D	ug/L			0.10 U	0.10 U
Dicamba	ug/L			0.050 U	0.050 U
Pentachlorophenol	ug/L			0.020 U	0.057
1 Mercury - Dissolved, in Water					
Mercury	ug/L			0.20 U	0.20 U
1 Mercury in Water					
Mercury	ug/L			0.20 U	0.20 U
1 Metals - Dissolved, in Water by ICP/MS					
Antimony	ug/L			2.0 U	2.0 U
Arsenic	ug/L			1.0 U	2.2 U
Barium	ug/L			88.8	103
Beryllium	ug/L			1.0 U	1.0 U
Cadmium	ug/L			1.0 U	1.0 U
Chromium	ug/L			2.0 U	2.0
Cobalt	ug/L			1.0 U	1.0 U
Copper	ug/L			2.0 U	2.0 U
Lead	ug/L			1.0 U	2.2
Manganese	ug/L			22.2	452
Nickel	ug/L			2.1	3.6
Selenium	ug/L			5.0 U	5.0 U
Silver	ug/L			1.0 U	1.0 U
Thallium	ug/L			1.0 U	1.0 U
Vanadium	ug/L			5.0 U	5.0 U
Zinc	ug/L			4.4	19.7
1 Metals in Water by ICP/MS					
Antimony	ug/L			2.0 U	2.0 U
Arsenic	ug/L			3.4 U	16.7
Barium	ug/L			112	178
Beryllium	ug/L			1.0 U	1.0 U
Cadmium	ug/L			1.0 U	1.0 U
Chromium	ug/L			15.7	20.9
Cobalt	ug/L			8.9	12.0
Copper	ug/L			14.6	20.1
Lead	ug/L			19.8	20.0
Manganese	ug/L			151	787
Nickel	ug/L			20.1	24.7

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Analysis/ Analyte	Units	115-__	116-__	201-__	202-__
Selenium	ug/L			5.0 U	5.0 U
Silver	ug/L			1.0 U	1.0 U
Thallium	ug/L			1.0 U	1.0 U
Vanadium	ug/L			27.7	26.6
Zinc	ug/L			45.4	72.5
1 Pesticides in Water by GC/EC					
Aldrin	ug/L			0.050 U	0.050 U
Aroclor 1016	ug/L			1.0 U	1.0 U
Aroclor 1221	ug/L			1.0 U	1.0 U
Aroclor 1232	ug/L			1.0 U	1.0 U
Aroclor 1242	ug/L			1.0 U	1.0 U
Aroclor 1248	ug/L			1.0 U	1.0 U
Aroclor 1254	ug/L			1.0 U	1.0 U
Aroclor 1260	ug/L			1.0 U	1.0 U
Aroclor 1262	ug/L			1.0 U	1.0 U
Aroclor 1268	ug/L			1.0 U	1.0 U
A-BHC	ug/L			0.050 U	0.050 U
B-BHC	ug/L			0.050 U	0.050 U
D-BHC	ug/L			0.050 U	0.050 U
G-BHC	ug/L			0.050 U	0.050 U
cis-Chlordane	ug/L			0.050 U	0.050 U
trans-Chlordane	ug/L			0.050 U	0.050 U
p,p'-DDD	ug/L			0.10 U	0.10 U
p,p'-DDE	ug/L			0.10 U	0.10 U
p,p'-DDT	ug/L			0.10 U	0.10 U
Dieldrin	ug/L			0.10 U	0.10 U
Endosulfan I	ug/L			0.050 U	0.050 U
Endosulfan II	ug/L			0.10 U	0.10 U
Endosulfan Sulfate	ug/L			0.10 U	0.10 U
Endrin	ug/L			0.10 U	0.10 U
Endrin Aldehyde	ug/L			0.10 U	0.10 U
Endrin Ketone	ug/L			0.10 U	0.10 U
Heptachlor	ug/L			0.050 U	0.050 U
Heptachlor Epoxide	ug/L			0.050 U	0.050 U
p,p'-Methoxychlor	ug/L			0.50 U	0.50 U
Toxaphene	ug/L			5.0 U	5.0 U
1 Semi-Volatile Organic Compounds in Water					
Acenaphthene	ug/L			2.0 U	2.0 U
Acenaphthylene	ug/L			2.0 U	2.0 U
Anthracene	ug/L			2.0 U	2.0 U
Benzo(a)anthracene	ug/L			2.0 U	2.0 U
Benzo(a)pyrene	ug/L			2.0 U	2.0 U
Benzo(b)fluoranthene	ug/L			2.0 U	2.0 U
Benzo(g,h,i)perylene	ug/L			2.0 U	2.0 U
Benzo(k)fluoranthene	ug/L			2.0 U	2.0 U

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Analysis/ Analyte	Units	115-__	116-__	201-__	202-__
Benzoic acid	ug/L			10 U	10 U
Benzyl alcohol	ug/L			5.0 U	5.0 U
bis(2-Chloroethoxy)methane	ug/L			2.0 U	2.0 U
bis(2-Chloroethyl)ether	ug/L			2.0 U	2.0 U
bis(2-Chloroisopropyl)ether	ug/L			2.0 U	2.0 U
bis(2-Ethylhexyl)phthalate	ug/L			5.0 U	9.0
4-Bromophenyl-phenylether	ug/L			2.0 U	2.0 U
Butylbenzylphthalate	ug/L			5.0 U	5.0 U
Carbazole	ug/L			5.0 U	5.0 U
4-Chloro-3-methylphenol	ug/L			5.0 U	5.0 U
4-Chloroaniline	ug/L			10 U	10 U
2-Chloronaphthalene	ug/L			2.0 U	2.0 U
2-Chlorophenol	ug/L			5.0 U	5.0 U
4-Chlorophenyl-phenylether	ug/L			2.0 U	2.0 U
Chrysene	ug/L			2.0 U	2.0 U
Di-n-butylphthalate	ug/L			5.0 U	5.0 U
Di-n-octylphthalate	ug/L			5.0 U	5.0 U
Dibenz(a,h)anthracene	ug/L			2.0 U	2.0 U
Dibenzofuran	ug/L			2.0 U	2.0 U
1,2-Dichlorobenzene	ug/L			2.0 U	2.0 U
1,3-Dichlorobenzene	ug/L			2.0 U	2.0 U
1,4-Dichlorobenzene	ug/L			2.0 U	2.0 U
3,3'-Dichlorobenzidine	ug/L			10 U	10 U
2,4-Dichlorophenol	ug/L			5.0 U	5.0 U
Diethylphthalate	ug/L			2.0 U	2.0 U
2,4-Dimethylphenol	ug/L			2.0 U	2.0 U
Dimethylphthalate	ug/L			2.0 U	2.0 U
4,6-Dinitro-2-methylphenol	ug/L			10 U	10 U
2,4-Dinitrophenol	ug/L			10 U	10 U
2,4-Dinitrotoluene	ug/L			2.0 U	2.0 U
2,6-Dinitrotoluene	ug/L			2.0 U	2.0 U
Fluoranthene	ug/L			2.0 U	2.0 U
Fluorene	ug/L			2.0 U	2.0 U
Hexachlorobenzene	ug/L			2.0 U	2.0 U
Hexachlorobutadiene	ug/L			2.0 UJ	2.0 UJ
Hexachlorocyclopentadiene	ug/L			2.0 U	2.0 U
Hexachloroethane	ug/L			2.0 UJ	2.0 UJ
Indeno(1,2,3-cd)pyrene	ug/L			2.0 U	2.0 U
Isophorone	ug/L			2.0 U	2.0 U
2-Methylnaphthalene	ug/L			2.0 U	2.0 U
2-Methylphenol	ug/L			5.0 U	5.0 U
4-Methylphenol	ug/L			5.0 U	9.0
Naphthalene	ug/L			2.0 U	2.6
2-Nitroaniline	ug/L			5.0 U	5.0 U
3-Nitroaniline	ug/L			5.0 U	5.0 U

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4-Nitroaniline	ug/L			10 U	10 U
Nitrobenzene	ug/L			2.0 U	2.0 U
2-Nitrophenol	ug/L			5.0 U	5.0 U
4-Nitrophenol	ug/L			10 U	10 U
N-nitroso-di-n-propylamine	ug/L			5.0 U	5.0 U
N-nitrosodiphenylamine	ug/L			2.0 U	2.0 U
Pentachlorophenol	ug/L			5.0 U	5.0 U
Phenanthrene	ug/L			2.0 U	2.0 U
Phenol	ug/L			2.0 U	2.0 U
Pyrene	ug/L			2.0 U	2.0 U
1,2,4-Trichlorobenzene	ug/L			2.0 U	2.0 U
2,4,5-Trichlorophenol	ug/L			5.0 U	5.0 U
2,4,6-Trichlorophenol	ug/L			5.0 U	5.0 U
1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID					
TPH DRO	mg/L			0.5 U	0.5 U
TPH ORO	mg/L			2 U	2 U
1 VOCs in Water by GC/MS for Low Detection Limits					
Acetone	ug/L			5.0 U	350 U
Benzene	ug/L			0.50 U	35 U
Bromochloromethane	ug/L			0.50 U	35 U
Bromodichloromethane	ug/L			0.50 U	35 U
Bromoform	ug/L			0.50 U	35 U
Bromomethane	ug/L			0.50 U	35 U
2-Butanone	ug/L			5.0 U	350 U
Carbon Disulfide	ug/L			0.50 U	35 U
Carbon Tetrachloride	ug/L			0.50 U	35 U
Chlorobenzene	ug/L			0.50 U	35 U
Chloroethane	ug/L			0.50 U	84
Chloroform	ug/L			0.50 U	35 U
Chloromethane	ug/L			0.50 U	35 U
Cyclohexane	ug/L			0.50 U	35 U
1,2-Dibromo-3-Chloropropane	ug/L			0.50 U	35 U
Dibromochloromethane	ug/L			0.50 U	35 U
1,2-Dibromoethane	ug/L			0.50 U	35 U
1,2-Dichlorobenzene	ug/L			0.50 U	35 U
1,3-Dichlorobenzene	ug/L			0.50 U	35 U
1,4-Dichlorobenzene	ug/L			0.50 U	35 U
Dichlorodifluoromethane	ug/L			0.50 U	35 U
1,1-Dichloroethane	ug/L			0.50 U	170
1,2-Dichloroethane	ug/L			0.50 U	35 U
1,1-Dichloroethene	ug/L			0.50 U	35 U
cis-1,2-Dichloroethene	ug/L			0.50 U	4500
trans-1,2-Dichloroethene	ug/L			0.50 U	35 U
1,2-Dichloropropane	ug/L			0.50 U	35 U
cis-1,3-Dichloropropene	ug/L			0.50 U	35 U

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Analysis/ Analyte	Units	115-__	116-__	201-__	202-__
trans-1,3-Dichloropropene	ug/L			0.50 U	35 U
Ethyl Benzene	ug/L			0.50 U	35 U
2-Hexanone	ug/L			5.0 U	350 U
Isopropylbenzene	ug/L			0.50 U	35 U
Methyl Acetate	ug/L			0.50 U	35 U
Methyl tert-butyl ether	ug/L			0.50 U	35 U
Methylcyclohexane	ug/L			0.50 U	35 U
Methylene Chloride	ug/L			0.50 U	35 U
4-Methyl-2-Pentanone	ug/L			5.0 U	350 U
Styrene	ug/L			0.50 U	35 U
1,1,2,2-Tetrachloroethane	ug/L			0.50 U	35 U
Tetrachloroethene	ug/L			0.50 U	35 U
Toluene	ug/L			0.50 U	99
1,2,3-Trichlorobenzene	ug/L			0.50 U	35 U
1,2,4-Trichlorobenzene	ug/L			0.50 U	35 U
1,1,1-Trichloroethane	ug/L			0.50 U	35 U
1,1,2-Trichloroethane	ug/L			0.50 U	35 U
Trichloroethene	ug/L			0.72	540
Trichlorofluoromethane	ug/L			0.50 U	35 U
1,1,2-Trichlorotrifluoroethane	ug/L			0.50 U	2700
Vinyl Chloride	ug/L			0.50 U	690
m and/or p-Xylene	ug/L			0.50 U	35 U
o-Xylene	ug/L			0.50 U	35 U
1 Volatile TPH in Water by GC/MS					
TPH GRO	mg/L			0.04 U	8.33

Analysis/ Analyte	Units	203-__	203-FD	204-__	205-__
1 Herbicides in Water by GC/EC					
2,4,5-T	ug/L	0.050 U	0.050 U	0.050 U	0.050 U
2,4,5-TP	ug/L	0.050 U	0.050 U	0.050 U	0.050 U
2,4-D	ug/L	0.10 U	0.10 U	0.10 U	0.10 U
Dicamba	ug/L	0.050 U	0.050 U	0.050 U	0.26 U
Pentachlorophenol	ug/L	0.020 U	0.020 U	0.020 U	0.020 U
1 Mercury - Dissolved, in Water					
Mercury	ug/L	0.20 U	0.20 U	0.20 U	0.20 U
1 Mercury in Water					
Mercury	ug/L	0.20 U	0.20 U	0.20 U	0.20 U
1 Metals - Dissolved, in Water by ICP/MS					
Antimony	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Arsenic	ug/L	5.0	5.2	1.0 U	1.0 U
Barium	ug/L	104	82.0	118	207
Beryllium	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Cadmium	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chromium	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Cobalt	ug/L	1.2	1.2	5.0	1.0 U
Copper	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Lead	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Manganese	ug/L	485	502	380	195
Nickel	ug/L	1.8	1.9	6.8	2.2
Selenium	ug/L	5.0 U	5.0 U	10.3	5.0 U
Silver	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Thallium	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Vanadium	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Zinc	ug/L	29.7	15.4	3.9	2.0 U
1 Metals in Water by ICP/MS					
Antimony	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Arsenic	ug/L	16.7	17.0	14.5	2.5 U
Barium	ug/L	94.7	98.0	309	248
Beryllium	ug/L	1.0 U	1.0 U	1.6	1.0 U
Cadmium	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chromium	ug/L	13.4	14.0	31.3	3.7
Cobalt	ug/L	6.0	6.3	38.6	2.1
Copper	ug/L	10.7	11.4	38.3	4.4
Lead	ug/L	16.4	15.9	31.3	2.9
Manganese	ug/L	559	575	1490	299
Nickel	ug/L	9.9	10.5	49.1	5.3
Selenium	ug/L	5.0 U	5.0 U	9.0	5.0 U
Silver	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Thallium	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Vanadium	ug/L	20.0	20.9	58.0	7.3
Zinc	ug/L	37.7	38.5	78.7	14.1
1 Pesticides in Water by GC/EC					
Aldrin	ug/L	0.050 U	0.050 U	0.050 U	0.050 U

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Analysis/ Analyte	Units	203-__	203-FD	204-__	205-__
Aroclor 1016	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Aroclor 1221	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Aroclor 1232	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Aroclor 1242	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Aroclor 1248	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Aroclor 1254	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Aroclor 1260	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Aroclor 1262	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Aroclor 1268	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
A-BHC	ug/L	0.050 U	0.050 U	0.050 U	0.050 U
B-BHC	ug/L	0.050 U	0.050 U	0.050 U	0.050 U
D-BHC	ug/L	0.050 U	0.050 U	0.050 U	0.050 U
G-BHC	ug/L	0.050 U	0.050 U	0.050 U	0.050 U
cis-Chlordane	ug/L	0.050 U	0.050 U	0.050 U	0.050 U
trans-Chlordane	ug/L	0.050 U	0.050 U	0.050 U	0.050 U
p,p'-DDD	ug/L	0.10 U	0.10 U	0.10 U	0.10 U
p,p'-DDE	ug/L	0.10 U	0.10 U	0.10 U	0.10 U
p,p'-DDT	ug/L	0.10 U	0.10 U	0.10 U	0.10 U
Dieldrin	ug/L	0.10 U	0.10 U	0.10 U	0.10 U
Endosulfan I	ug/L	0.050 U	0.050 U	0.050 U	0.050 U
Endosulfan II	ug/L	0.10 U	0.10 U	0.10 U	0.10 U
Endosulfan Sulfate	ug/L	0.10 U	0.10 U	0.10 U	0.10 U
Endrin	ug/L	0.10 U	0.10 U	0.10 U	0.10 U
Endrin Aldehyde	ug/L	0.10 U	0.10 U	0.10 U	0.10 U
Endrin Ketone	ug/L	0.10 U	0.10 U	0.10 U	0.10 U
Heptachlor	ug/L	0.050 U	0.050 U	0.050 U	0.050 U
Heptachlor Epoxide	ug/L	0.050 U	0.050 U	0.050 U	0.050 U
p,p'-Methoxychlor	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Toxaphene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1 Semi-Volatile Organic Compounds in Water					
Acenaphthene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Acenaphthylene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Anthracene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Benzo(a)anthracene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Benzo(a)pyrene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Benzo(b)fluoranthene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Benzo(g,h,i)perylene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Benzo(k)fluoranthene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Benzoic acid	ug/L	10 U	10 U	10 U	10 U
Benzyl alcohol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Chloroethoxy)methane	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
bis(2-Chloroethyl)ether	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
bis(2-Chloroisopropyl)ether	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
bis(2-Ethylhexyl)phthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Bromophenyl-phenylether	ug/L	2.0 U	2.0 U	2.0 U	2.0 U

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Butylbenzylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbazole	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloro-3-methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloroaniline	ug/L	10 U	10 U	10 U	10 U
2-Chloronaphthalene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
2-Chlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Chlorophenyl-phenylether	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Chrysene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Di-n-butylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-octylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Dibenz(a,h)anthracene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Dibenzofuran	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
1,2-Dichlorobenzene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
1,3-Dichlorobenzene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
1,4-Dichlorobenzene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
3,3'-Dichlorobenzidine	ug/L	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Diethylphthalate	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
2,4-Dimethylphenol	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Dimethylphthalate	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
4,6-Dinitro-2-methylphenol	ug/L	10 U	10 U	10 U	10 U
2,4-Dinitrophenol	ug/L	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
2,6-Dinitrotoluene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Fluoranthene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Fluorene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Hexachlorobenzene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Hexachlorobutadiene	ug/L	2.0 UJ	2.0 UJ	2.0 UJ	2.0 UJ
Hexachlorocyclopentadiene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Hexachloroethane	ug/L	2.0 UJ	2.0 UJ	2.0 UJ	2.0 UJ
Indeno(1,2,3-cd)pyrene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Isophorone	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
2-Methylnaphthalene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
2-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Naphthalene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
2-Nitroaniline	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
3-Nitroaniline	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Nitroaniline	ug/L	10 U	10 U	10 U	10 U
Nitrobenzene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
2-Nitrophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Nitrophenol	ug/L	10 U	10 U	10 U	10 U
N-nitroso-di-n-propylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
N-nitrosodiphenylamine	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Pentachlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U

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Phenanthrene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Phenol	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Pyrene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
2,4,5-Trichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2,4,6-Trichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID					
TPH DRO	mg/L	0.5 U	0.5 U	0.5 U	0.5 U
TPH ORO	mg/L	2 U	2 U	2 U	2 U
1 VOCs in Water by GC/MS for Low Detection Limits					
Acetone	ug/L	5.0 U	8.4 U	5.0 U	6.4
Benzene	ug/L	0.50 U	0.84 U	0.50 U	0.50 U
Bromochloromethane	ug/L	0.50 U	0.84 U	0.50 U	0.50 U
Bromodichloromethane	ug/L	0.50 U	0.84 U	0.50 U	0.50 U
Bromoform	ug/L	0.50 UJ	0.84 UJ	0.50 UJ	0.50 UJ
Bromomethane	ug/L	0.50 U	0.84 U	0.50 U	0.50 U
2-Butanone	ug/L	5.0 U	8.4 U	5.0 U	5.0 U
Carbon Disulfide	ug/L	0.50 U	0.84 U	0.50 U	0.50 U
Carbon Tetrachloride	ug/L	0.50 U	0.84 U	0.50 U	0.50 U
Chlorobenzene	ug/L	0.50 U	0.84 U	0.50 U	0.50 U
Chloroethane	ug/L	0.50 U	0.84 U	0.50 U	0.50 U
Chloroform	ug/L	0.50 U	0.84 U	0.50 U	0.50 U
Chloromethane	ug/L	0.50 U	0.84 U	0.50 U	0.50 U
Cyclohexane	ug/L	0.50 U	0.84 U	0.50 U	0.50 U
1,2-Dibromo-3-Chloropropane	ug/L	0.50 U	0.84 U	0.50 U	0.50 U
Dibromochloromethane	ug/L	0.50 U	0.84 U	0.50 U	0.50 U
1,2-Dibromoethane	ug/L	0.50 U	0.84 U	0.50 U	0.50 U
1,2-Dichlorobenzene	ug/L	0.50 U	0.84 U	0.50 U	0.50 U
1,3-Dichlorobenzene	ug/L	0.50 U	0.84 U	0.50 U	0.50 U
1,4-Dichlorobenzene	ug/L	0.50 U	0.84 U	0.50 U	0.50 U
Dichlorodifluoromethane	ug/L	0.50 U	0.84 U	0.50 U	0.50 U
1,1-Dichloroethane	ug/L	3.1	2.8	0.50 U	0.50 U
1,2-Dichloroethane	ug/L	0.50 U	0.84 U	0.50 U	0.50 U
1,1-Dichloroethene	ug/L	0.85	0.84 U	0.50 U	0.50 U
cis-1,2-Dichloroethene	ug/L	76	58	0.50 U	0.59
trans-1,2-Dichloroethene	ug/L	0.50 U	0.84 U	0.50 U	0.50 U
1,2-Dichloropropane	ug/L	0.50 U	0.84 U	0.50 U	0.50 U
cis-1,3-Dichloropropene	ug/L	0.50 U	0.84 U	0.50 U	0.50 U
trans-1,3-Dichloropropene	ug/L	0.50 U	0.84 U	0.50 U	0.50 U
Ethyl Benzene	ug/L	0.50 U	0.84 U	0.50 U	0.50 U
2-Hexanone	ug/L	5.0 U	8.4 U	5.0 U	5.0 U
Isopropylbenzene	ug/L	0.50 U	0.84 U	0.50 U	0.50 U
Methyl Acetate	ug/L	0.50 U	0.84 U	0.50 U	0.50 U
Methyl tert-butyl ether	ug/L	0.50 U	0.84 U	0.50 U	0.50 U
Methylcyclohexane	ug/L	0.50 U	0.84 U	0.50 U	0.50 U

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Analysis/ Analyte	Units	203-__	203-FD	204-__	205-__
Methylene Chloride	ug/L	0.50 U	0.84 U	0.50 U	0.50 U
4-Methyl-2-Pentanone	ug/L	5.0 U	8.4 U	5.0 U	5.0 U
Styrene	ug/L	0.50 U	0.84 U	0.50 U	0.50 U
1,1,2,2-Tetrachloroethane	ug/L	0.50 U	0.84 U	0.50 U	0.50 U
Tetrachloroethene	ug/L	0.50 U	0.84 U	0.50 U	0.50 U
Toluene	ug/L	1.3	1.3	0.50 U	0.50 U
1,2,3-Trichlorobenzene	ug/L	0.50 U	0.84 U	0.50 U	0.50 U
1,2,4-Trichlorobenzene	ug/L	0.50 U	0.84 U	0.50 U	0.50 U
1,1,1-Trichloroethane	ug/L	0.50 U	0.84 U	0.50 U	0.50 U
1,1,2-Trichloroethane	ug/L	0.50 U	0.84 U	0.50 U	0.50 U
Trichloroethene	ug/L	94	72	0.50 U	0.50 U
Trichlorofluoromethane	ug/L	0.50 U	0.84 U	0.50 U	0.50 U
1,1,2-Trichlorotrifluoroethane	ug/L	0.50 U	0.84 U	0.50 U	0.50 U
Vinyl Chloride	ug/L	19	16	0.50 U	0.50 U
m and/or p-Xylene	ug/L	0.50 U	0.84 U	0.50 U	0.50 U
o-Xylene	ug/L	0.50 U	0.84 U	0.50 U	0.50 U
1 Volatile TPH in Water by GC/MS					
TPH GRO	mg/L	0.293	0.311	0.04 U	0.04 U

Analysis/ Analyte	Units	206-__	207-__	210-FB	211-FB
1 Herbicides in Water by GC/EC					
2,4,5-T	ug/L	0.050 U	0.050 U		0.050 U
2,4,5-TP	ug/L	0.050 U	0.050 U		0.050 U
2,4-D	ug/L	0.10 U	0.10 U		0.10 U
Dicamba	ug/L	0.17 U	0.27		0.050 U
Pentachlorophenol	ug/L	0.020 U	0.020 U		0.020 U
1 Mercury - Dissolved, in Water					
Mercury	ug/L	0.20 U	0.20 U		0.20 U
1 Mercury in Water					
Mercury	ug/L	0.20 U	0.20 U		0.20 U
1 Metals - Dissolved, in Water by ICP/MS					
Antimony	ug/L	2.0 U	2.0 U		2.0 U
Arsenic	ug/L	1.2 U	1.0 U		1.0 U
Barium	ug/L	214	212		41.8
Beryllium	ug/L	1.0 U	1.0 U		1.0 U
Cadmium	ug/L	1.0 U	1.0 U		1.0 U
Chromium	ug/L	2.0 U	2.0 U		2.0 U
Cobalt	ug/L	1.0 U	1.0 U		1.0 U
Copper	ug/L	2.0 U	2.0 U		2.0 U
Lead	ug/L	1.0 U	1.0 U		1.0 U
Manganese	ug/L	520	415		87.5
Nickel	ug/L	2.2	2.2		1.0 U
Selenium	ug/L	5.0 U	5.0 U		5.0 U
Silver	ug/L	1.0 U	1.0 U		1.0 U
Thallium	ug/L	1.0 U	1.0 U		1.0 U
Vanadium	ug/L	5.0 U	5.0 U		5.0 U
Zinc	ug/L	2.0 U	2.0 U		2.1
1 Metals in Water by ICP/MS					
Antimony	ug/L	2.0 U	2.0 U		2.0 U
Arsenic	ug/L	1.6 U	1.1 U		1.0 U
Barium	ug/L	224	220		10.0 U
Beryllium	ug/L	1.0 U	1.0 U		1.0 U
Cadmium	ug/L	1.0 U	1.0 U		1.0 U
Chromium	ug/L	2.0 U	2.0 U		2.0 U
Cobalt	ug/L	1.0	1.0 U		1.0 U
Copper	ug/L	2.0 U	2.0 U		3.3
Lead	ug/L	1.0 U	1.0 U		1.0 U
Manganese	ug/L	532	428		1.0 U
Nickel	ug/L	2.3	2.2		1.0 U
Selenium	ug/L	5.0 U	5.0 U		5.0 U
Silver	ug/L	1.0 U	1.0 U		1.0 U
Thallium	ug/L	1.0 U	1.0 U		1.0 U
Vanadium	ug/L	5.0 U	5.0 U		5.0 U
Zinc	ug/L	2.0 U	2.0 U		2.0 U
1 Pesticides in Water by GC/EC					
Aldrin	ug/L	0.050 U	0.050 U		0.050 U

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Analysis/ Analyte	Units	206-__	207-__	210-FB	211-FB
Aroclor 1016	ug/L	1.0 U	1.0 U		1.0 U
Aroclor 1221	ug/L	1.0 U	1.0 U		1.0 U
Aroclor 1232	ug/L	1.0 U	1.0 U		1.0 U
Aroclor 1242	ug/L	1.0 U	1.0 U		1.0 U
Aroclor 1248	ug/L	1.0 U	1.0 U		1.0 U
Aroclor 1254	ug/L	1.0 U	1.0 U		1.0 U
Aroclor 1260	ug/L	1.0 U	1.0 U		1.0 U
Aroclor 1262	ug/L	1.0 U	1.0 U		1.0 U
Aroclor 1268	ug/L	1.0 U	1.0 U		1.0 U
A-BHC	ug/L	0.050 U	0.050 U		0.050 U
B-BHC	ug/L	0.050 U	0.050 U		0.050 U
D-BHC	ug/L	0.050 U	0.050 U		0.050 U
G-BHC	ug/L	0.050 U	0.050 U		0.050 U
cis-Chlordane	ug/L	0.050 U	0.050 U		0.050 U
trans-Chlordane	ug/L	0.050 U	0.050 U		0.050 U
p,p'-DDD	ug/L	0.10 U	0.10 U		0.10 U
p,p'-DDE	ug/L	0.10 U	0.10 U		0.10 U
p,p'-DDT	ug/L	0.10 U	0.10 U		0.10 U
Dieldrin	ug/L	0.10 U	0.10 U		0.10 U
Endosulfan I	ug/L	0.050 U	0.050 U		0.050 U
Endosulfan II	ug/L	0.10 U	0.10 U		0.10 U
Endosulfan Sulfate	ug/L	0.10 U	0.10 U		0.10 U
Endrin	ug/L	0.10 U	0.10 U		0.10 U
Endrin Aldehyde	ug/L	0.10 U	0.10 U		0.10 U
Endrin Ketone	ug/L	0.10 U	0.10 U		0.10 U
Heptachlor	ug/L	0.050 U	0.050 U		0.050 U
Heptachlor Epoxide	ug/L	0.050 U	0.050 U		0.050 U
p,p'-Methoxychlor	ug/L	0.50 U	0.50 U		0.50 U
Toxaphene	ug/L	5.0 U	5.0 U		5.0 U
1 Semi-Volatile Organic Compounds in Water					
Acenaphthene	ug/L	2.0 U	2.0 U		2.0 U
Acenaphthylene	ug/L	2.0 U	2.0 U		2.0 U
Anthracene	ug/L	2.0 U	2.0 U		2.0 U
Benzo(a)anthracene	ug/L	2.0 U	2.0 U		2.0 U
Benzo(a)pyrene	ug/L	2.0 U	2.0 U		2.0 U
Benzo(b)fluoranthene	ug/L	2.0 U	2.0 U		2.0 U
Benzo(g,h,i)perylene	ug/L	2.0 U	2.0 U		2.0 U
Benzo(k)fluoranthene	ug/L	2.0 U	2.0 U		2.0 U
Benzoic acid	ug/L	10 U	10 U		10 U
Benzyl alcohol	ug/L	5.0 U	5.0 U		5.0 U
bis(2-Chloroethoxy)methane	ug/L	2.0 U	2.0 U		2.0 U
bis(2-Chloroethyl)ether	ug/L	2.0 U	2.0 U		2.0 U
bis(2-Chloroisopropyl)ether	ug/L	2.0 U	2.0 U		2.0 U
bis(2-Ethylhexyl)phthalate	ug/L	5.0 U	5.0 U		5.0 U
4-Bromophenyl-phenylether	ug/L	2.0 U	2.0 U		2.0 U

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Analysis/ Analyte	Units	206-__	207-__	210-FB	211-FB
Butylbenzylphthalate	ug/L	5.0 U	5.0 U		5.0 U
Carbazole	ug/L	5.0 U	5.0 U		5.0 U
4-Chloro-3-methylphenol	ug/L	5.0 U	5.0 U		5.0 U
4-Chloroaniline	ug/L	10 U	10 U		10 U
2-Chloronaphthalene	ug/L	2.0 U	2.0 U		2.0 U
2-Chlorophenol	ug/L	5.0 U	5.0 U		5.0 U
4-Chlorophenyl-phenylether	ug/L	2.0 U	2.0 U		2.0 U
Chrysene	ug/L	2.0 U	2.0 U		2.0 U
Di-n-butylphthalate	ug/L	5.0 U	5.0 U		5.0 U
Di-n-octylphthalate	ug/L	5.0 U	5.0 U		5.0 U
Dibenz(a,h)anthracene	ug/L	2.0 U	2.0 UJ		2.0 U
Dibenzofuran	ug/L	2.0 U	2.0 U		2.0 U
1,2-Dichlorobenzene	ug/L	2.0 U	2.0 U		2.0 U
1,3-Dichlorobenzene	ug/L	2.0 U	2.0 U		2.0 U
1,4-Dichlorobenzene	ug/L	2.0 U	2.0 U		2.0 U
3,3'-Dichlorobenzidine	ug/L	10 U	10 UJ		10 U
2,4-Dichlorophenol	ug/L	5.0 U	5.0 U		5.0 U
Diethylphthalate	ug/L	2.0 U	2.0 U		2.0 U
2,4-Dimethylphenol	ug/L	2.0 U	2.0 U		2.0 U
Dimethylphthalate	ug/L	2.0 U	2.0 U		2.0 U
4,6-Dinitro-2-methylphenol	ug/L	10 U	10 U		10 U
2,4-Dinitrophenol	ug/L	10 U	10 U		10 U
2,4-Dinitrotoluene	ug/L	2.0 U	2.0 U		2.0 U
2,6-Dinitrotoluene	ug/L	2.0 U	2.0 U		2.0 U
Fluoranthene	ug/L	2.0 U	2.0 U		2.0 U
Fluorene	ug/L	2.0 U	2.0 U		2.0 U
Hexachlorobenzene	ug/L	2.0 U	2.0 U		2.0 U
Hexachlorobutadiene	ug/L	2.0 UJ	2.0 UJ		2.0 UJ
Hexachlorocyclopentadiene	ug/L	2.0 U	2.0 U		2.0 U
Hexachloroethane	ug/L	2.0 UJ	2.0 UJ		2.0 UJ
Indeno(1,2,3-cd)pyrene	ug/L	2.0 U	2.0 UJ		2.0 U
Isophorone	ug/L	2.0 U	2.0 U		2.0 U
2-Methylnaphthalene	ug/L	2.0 U	2.0 U		2.0 U
2-Methylphenol	ug/L	5.0 U	5.0 U		5.0 U
4-Methylphenol	ug/L	5.0 U	5.0 U		5.0 U
Naphthalene	ug/L	2.0 U	2.0 U		2.0 U
2-Nitroaniline	ug/L	5.0 U	5.0 U		5.0 U
3-Nitroaniline	ug/L	5.0 U	5.0 U		5.0 U
4-Nitroaniline	ug/L	10 U	10 U		10 U
Nitrobenzene	ug/L	2.0 U	2.0 U		2.0 U
2-Nitrophenol	ug/L	5.0 U	5.0 U		5.0 U
4-Nitrophenol	ug/L	10 U	10 U		10 U
N-nitroso-di-n-propylamine	ug/L	5.0 U	5.0 U		5.0 U
N-nitrosodiphenylamine	ug/L	2.0 U	2.0 U		2.0 U
Pentachlorophenol	ug/L	5.0 U	5.0 U		5.0 U

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Analysis/ Analyte	Units	206-__	207-__	210-FB	211-FB
Phenanthrene	ug/L	2.0 U	2.0 U		2.0 U
Phenol	ug/L	2.0 U	2.0 U		2.0 U
Pyrene	ug/L	2.0 U	2.0 U		2.0 U
1,2,4-Trichlorobenzene	ug/L	2.0 U	2.0 U		2.0 U
2,4,5-Trichlorophenol	ug/L	5.0 U	5.0 U		5.0 U
2,4,6-Trichlorophenol	ug/L	5.0 U	5.0 U		5.0 U
1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID					
TPH DRO	mg/L	0.5 U	0.5 U		0.5 U
TPH ORO	mg/L	2 U	2 U		2 U
1 VOCs in Water by GC/MS for Low Detection Limits					
Acetone	ug/L	5.0 U	5.0 U	5.7	5.7
Benzene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Bromochloromethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Bromodichloromethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Bromoform	ug/L	0.50 UJ	0.50 UJ	0.50 UJ	0.50 UJ
Bromomethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
2-Butanone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbon Disulfide	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Carbon Tetrachloride	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Chlorobenzene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Chloroethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Chloroform	ug/L	0.50 U	0.50 U	1.0	0.99
Chloromethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Cyclohexane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dibromo-3-Chloropropane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Dibromochloromethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dibromoethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dichlorobenzene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,3-Dichlorobenzene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,4-Dichlorobenzene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Dichlorodifluoromethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,1-Dichloroethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dichloroethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,1-Dichloroethene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
cis-1,2-Dichloroethene	ug/L	3.6	1.9	0.50 U	0.50 U
trans-1,2-Dichloroethene	ug/L	1.5	0.66	0.50 U	0.50 U
1,2-Dichloropropane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
cis-1,3-Dichloropropene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
trans-1,3-Dichloropropene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Ethyl Benzene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
2-Hexanone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Methyl Acetate	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Methyl tert-butyl ether	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Methylcyclohexane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U

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Analysis/ Analyte	Units	206-__	207-__	210-FB	211-FB
Methylene Chloride	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
4-Methyl-2-Pentanone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,1,2,2-Tetrachloroethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Tetrachloroethene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Toluene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,2,3-Trichlorobenzene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,2,4-Trichlorobenzene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,1,1-Trichloroethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,1,2-Trichloroethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Trichloroethene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Trichlorofluoromethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,1,2-Trichlorotrifluoroethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Vinyl Chloride	ug/L	1.2	0.50 U	0.50 U	0.50 U
m and/or p-Xylene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
o-Xylene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1 Volatile TPH in Water by GC/MS					
TPH GRO	mg/L	0.0539	0.04 U	0.04 U	0.04 U

Analysis/ Analyte	Units	212-__	213-FB
1 Herbicides in Water by GC/EC			
2,4,5-T	ug/L	0.050 U	
2,4,5-TP	ug/L	0.050 U	
2,4-D	ug/L	0.10 U	
Dicamba	ug/L	0.050 U	
Pentachlorophenol	ug/L	0.020 U	
1 Mercury - Dissolved, in Water			
Mercury	ug/L	0.20 U	
1 Mercury in Water			
Mercury	ug/L	0.20 U	
1 Metals - Dissolved, in Water by ICP/MS			
Antimony	ug/L	2.0 U	
Arsenic	ug/L	1.0 U	
Barium	ug/L	10.0 U	
Beryllium	ug/L	1.0 U	
Cadmium	ug/L	1.0 U	
Chromium	ug/L	2.0 U	
Cobalt	ug/L	1.0 U	
Copper	ug/L	2.0 U	
Lead	ug/L	1.0 U	
Manganese	ug/L	1.0 U	
Nickel	ug/L	1.0 U	
Selenium	ug/L	5.0 U	
Silver	ug/L	1.0 U	
Thallium	ug/L	1.0 U	
Vanadium	ug/L	5.0 U	
Zinc	ug/L	2.2	
1 Metals in Water by ICP/MS			
Antimony	ug/L	2.0 U	
Arsenic	ug/L	1.0 U	
Barium	ug/L	10.0 U	
Beryllium	ug/L	1.0 U	
Cadmium	ug/L	1.0 U	
Chromium	ug/L	2.0 U	
Cobalt	ug/L	1.0 U	
Copper	ug/L	2.0 U	
Lead	ug/L	1.0 U	
Manganese	ug/L	1.0 U	
Nickel	ug/L	1.0 U	
Selenium	ug/L	5.0 U	
Silver	ug/L	1.0 U	
Thallium	ug/L	1.0 U	
Vanadium	ug/L	5.0 U	
Zinc	ug/L	2.0 U	
1 Pesticides in Water by GC/EC			
Aldrin	ug/L	0.050 U	

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Analysis/ Analyte	Units	212-__	213-FB
Aroclor 1016	ug/L	1.0 U	
Aroclor 1221	ug/L	1.0 U	
Aroclor 1232	ug/L	1.0 U	
Aroclor 1242	ug/L	1.0 U	
Aroclor 1248	ug/L	1.0 U	
Aroclor 1254	ug/L	1.0 U	
Aroclor 1260	ug/L	1.0 U	
Aroclor 1262	ug/L	1.0 U	
Aroclor 1268	ug/L	1.0 U	
A-BHC	ug/L	0.050 U	
B-BHC	ug/L	0.050 U	
D-BHC	ug/L	0.050 U	
G-BHC	ug/L	0.050 U	
cis-Chlordane	ug/L	0.050 U	
trans-Chlordane	ug/L	0.050 U	
p,p'-DDD	ug/L	0.10 U	
p,p'-DDE	ug/L	0.10 U	
p,p'-DDT	ug/L	0.10 U	
Dieldrin	ug/L	0.10 U	
Endosulfan I	ug/L	0.050 U	
Endosulfan II	ug/L	0.10 U	
Endosulfan Sulfate	ug/L	0.10 U	
Endrin	ug/L	0.10 U	
Endrin Aldehyde	ug/L	0.10 U	
Endrin Ketone	ug/L	0.10 U	
Heptachlor	ug/L	0.050 U	
Heptachlor Epoxide	ug/L	0.050 U	
p,p'-Methoxychlor	ug/L	0.50 U	
Toxaphene	ug/L	5.0 U	
1 Semi-Volatile Organic Compounds in Water			
Acenaphthene	ug/L	2.0 U	
Acenaphthylene	ug/L	2.0 U	
Anthracene	ug/L	2.0 U	
Benzo(a)anthracene	ug/L	2.0 U	
Benzo(a)pyrene	ug/L	2.0 U	
Benzo(b)fluoranthene	ug/L	2.0 U	
Benzo(g,h,i)perylene	ug/L	2.0 U	
Benzo(k)fluoranthene	ug/L	2.0 U	
Benzoic acid	ug/L	10 U	
Benzyl alcohol	ug/L	5.0 U	
bis(2-Chloroethoxy)methane	ug/L	2.0 U	
bis(2-Chloroethyl)ether	ug/L	2.0 U	
bis(2-Chloroisopropyl)ether	ug/L	2.0 U	
bis(2-Ethylhexyl)phthalate	ug/L	5.0 U	
4-Bromophenyl-phenylether	ug/L	2.0 U	

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Analysis/ Analyte	Units	212-__	213-FB
Butylbenzylphthalate	ug/L	5.0 U	
Carbazole	ug/L	5.0 U	
4-Chloro-3-methylphenol	ug/L	5.0 U	
4-Chloroaniline	ug/L	10 U	
2-Chloronaphthalene	ug/L	2.0 U	
2-Chlorophenol	ug/L	5.0 U	
4-Chlorophenyl-phenylether	ug/L	2.0 U	
Chrysene	ug/L	2.0 U	
Di-n-butylphthalate	ug/L	5.0 U	
Di-n-octylphthalate	ug/L	5.0 U	
Dibenz(a,h)anthracene	ug/L	2.0 U	
Dibenzofuran	ug/L	2.0 U	
1,2-Dichlorobenzene	ug/L	2.0 U	
1,3-Dichlorobenzene	ug/L	2.0 U	
1,4-Dichlorobenzene	ug/L	2.0 U	
3,3'-Dichlorobenzidine	ug/L	10 U	
2,4-Dichlorophenol	ug/L	5.0 U	
Diethylphthalate	ug/L	2.0 U	
2,4-Dimethylphenol	ug/L	2.0 U	
Dimethylphthalate	ug/L	2.0 U	
4,6-Dinitro-2-methylphenol	ug/L	10 U	
2,4-Dinitrophenol	ug/L	10 U	
2,4-Dinitrotoluene	ug/L	2.0 U	
2,6-Dinitrotoluene	ug/L	2.0 U	
Fluoranthene	ug/L	2.0 U	
Fluorene	ug/L	2.0 U	
Hexachlorobenzene	ug/L	2.0 U	
Hexachlorobutadiene	ug/L	2.0 UJ	
Hexachlorocyclopentadiene	ug/L	2.0 U	
Hexachloroethane	ug/L	2.0 UJ	
Indeno(1,2,3-cd)pyrene	ug/L	2.0 U	
Isophorone	ug/L	2.0 U	
2-Methylnaphthalene	ug/L	2.0 U	
2-Methylphenol	ug/L	5.0 U	
4-Methylphenol	ug/L	5.0 U	
Naphthalene	ug/L	2.0 U	
2-Nitroaniline	ug/L	5.0 U	
3-Nitroaniline	ug/L	5.0 U	
4-Nitroaniline	ug/L	10 U	
Nitrobenzene	ug/L	2.0 U	
2-Nitrophenol	ug/L	5.0 U	
4-Nitrophenol	ug/L	10 U	
N-nitroso-di-n-propylamine	ug/L	5.0 U	
N-nitrosodiphenylamine	ug/L	2.0 U	
Pentachlorophenol	ug/L	5.0 U	

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Analysis/ Analyte	Units	212-__	213-FB
Phenanthrene	ug/L	2.0 U	
Phenol	ug/L	2.0 U	
Pyrene	ug/L	2.0 U	
1,2,4-Trichlorobenzene	ug/L	2.0 U	
2,4,5-Trichlorophenol	ug/L	5.0 U	
2,4,6-Trichlorophenol	ug/L	5.0 U	
1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID			
TPH DRO	mg/L	0.5 U	
TPH ORO	mg/L	2 U	
1 VOCs in Water by GC/MS for Low Detection Limits			
Acetone	ug/L	5.0 U	5.0 U
Benzene	ug/L	0.50 U	0.50 U
Bromochloromethane	ug/L	0.50 U	0.50 U
Bromodichloromethane	ug/L	0.50 U	0.50 U
Bromoform	ug/L	0.50 UJ	0.50 UJ
Bromomethane	ug/L	0.50 U	0.50 U
2-Butanone	ug/L	5.0 U	5.0 U
Carbon Disulfide	ug/L	0.50 U	0.50 U
Carbon Tetrachloride	ug/L	0.50 U	0.50 U
Chlorobenzene	ug/L	0.50 U	0.50 U
Chloroethane	ug/L	0.50 U	0.50 U
Chloroform	ug/L	0.74	0.50 U
Chloromethane	ug/L	0.50 U	0.50 U
Cyclohexane	ug/L	0.50 U	0.50 U
1,2-Dibromo-3-Chloropropane	ug/L	0.50 U	0.50 U
Dibromochloromethane	ug/L	0.50 U	0.50 U
1,2-Dibromoethane	ug/L	0.50 U	0.50 U
1,2-Dichlorobenzene	ug/L	0.50 U	0.50 U
1,3-Dichlorobenzene	ug/L	0.50 U	0.50 U
1,4-Dichlorobenzene	ug/L	0.50 U	0.50 U
Dichlorodifluoromethane	ug/L	0.50 U	0.50 U
1,1-Dichloroethane	ug/L	0.50 U	0.50 U
1,2-Dichloroethane	ug/L	0.50 U	0.50 U
1,1-Dichloroethene	ug/L	0.50 U	0.50 U
cis-1,2-Dichloroethene	ug/L	0.50 U	0.50 U
trans-1,2-Dichloroethene	ug/L	0.50 U	0.50 U
1,2-Dichloropropane	ug/L	0.50 U	0.50 U
cis-1,3-Dichloropropene	ug/L	0.50 U	0.50 U
trans-1,3-Dichloropropene	ug/L	0.50 U	0.50 U
Ethyl Benzene	ug/L	0.50 U	0.50 U
2-Hexanone	ug/L	5.0 U	5.0 U
Isopropylbenzene	ug/L	0.50 U	0.50 U
Methyl Acetate	ug/L	0.50 U	0.50 U
Methyl tert-butyl ether	ug/L	0.50 U	0.50 U
Methylcyclohexane	ug/L	0.50 U	0.50 U

ASR Number: 6910**RLAB Approved Sample Analysis Results****10/26/2015****Project ID: THDTLPA****Project Desc: Tanglefoot Lane Site**

Analysis/ Analyte	Units	212-__	213-FB
Methylene Chloride	ug/L	0.50 U	0.50 U
4-Methyl-2-Pentanone	ug/L	5.0 U	5.0 U
Styrene	ug/L	0.50 U	0.50 U
1,1,2,2-Tetrachloroethane	ug/L	0.50 U	0.50 U
Tetrachloroethene	ug/L	0.50 U	0.50 U
Toluene	ug/L	0.50 U	0.50 U
1,2,3-Trichlorobenzene	ug/L	0.50 U	0.50 U
1,2,4-Trichlorobenzene	ug/L	0.50 U	0.50 U
1,1,1-Trichloroethane	ug/L	0.50 U	0.50 U
1,1,2-Trichloroethane	ug/L	0.50 U	0.50 U
Trichloroethene	ug/L	0.50 U	0.50 U
Trichlorofluoromethane	ug/L	0.50 U	0.50 U
1,1,2-Trichlorotrifluoroethane	ug/L	0.50 U	0.50 U
Vinyl Chloride	ug/L	0.50 U	0.50 U
m and/or p-Xylene	ug/L	0.50 U	0.50 U
o-Xylene	ug/L	0.50 U	0.50 U
1 Volatile TPH in Water by GC/MS			
TPH GRO	mg/L	0.04 U	0.04 U

**United States Environmental Protection Agency
Region VII
300 Minnesota Avenue
Kansas City, KS 66101**

Date: __/__/__

Subject: Data Disposition/Sample Release for ASR #: 6910

Project ID: THDTLPA

Project Description: Tanglefoot Lane Site

From: Todd Davis

SUPR/ERNB

To: Alisha Claycamp

ENSV/CARB

I have received and reviewed the Transmittal of Sample Analysis Results for the above-referenced Analytical Services Request(ASR) and have indicated my findings below by checking one of the boxes for Data Disposition.

I understand all samples will be disposed upon receipt of this form, unless samples are requested to be held. If I do not return this form all samples will be disposed of on _____.

- ☐ "RELEASED" - Read-only to all Region 7 employees and contractors that have R7LIMS "Customer" account. All Samples may be disposed of upon receipt of this form if not requested to be held.
- ☐ "Project Manager Accessible" - Available on the LAN in R7LIMS for my use only. All Samples may be disposed of upon receipt of this form if not requested to be held.
- ☐ "Archived" - THIS DATA IS OF A SENSITIVE NATURE. Any future reports must be requested through the laboratory. All samples may be disposed of upon receipt of the form if not requested to be held.

-
- ☐ Hold Samples - I have determined that the samples need to be held until _____, after which time they will be disposed of in accordance with applicable regulations.
The reason for the hold is:

☐ Samples are associated with a legal proceeding.

☐ Question/Concern with data - possible reanalysis requested.

☐ Other: _____